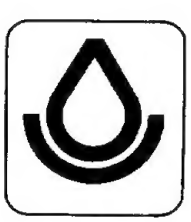
SOIL SURVEY OF

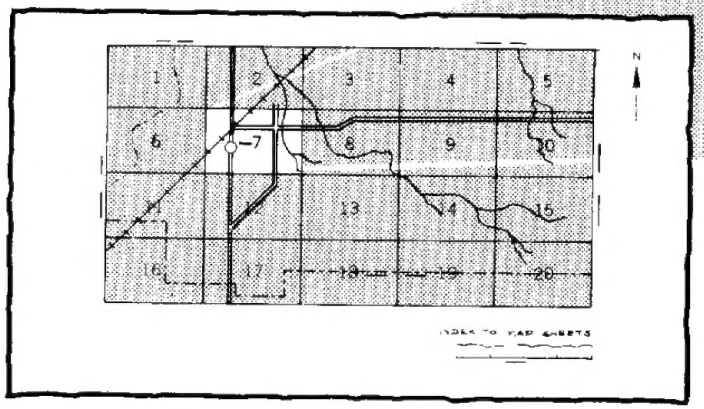
St. Martin Parish, Louisiana

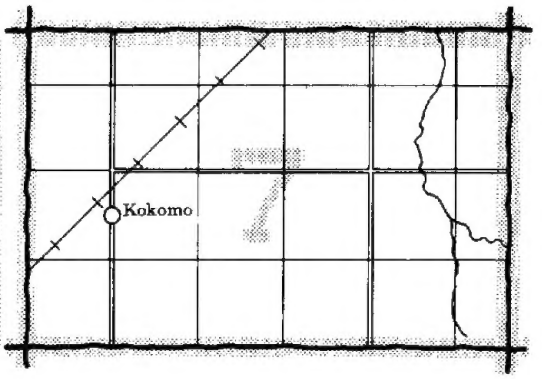


United States Department of Agriculture
Soil Conservation Service
In cooperation with
Louisiana Agricultural Experiment Station

HOW TO USE

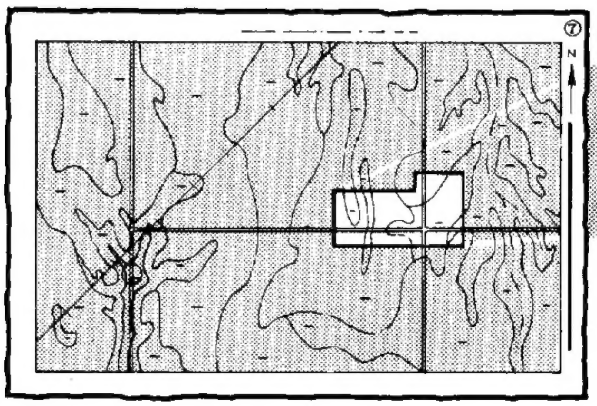
1. Locate your area of interest on the "Index to Map Sheets" (the last page of this publication).

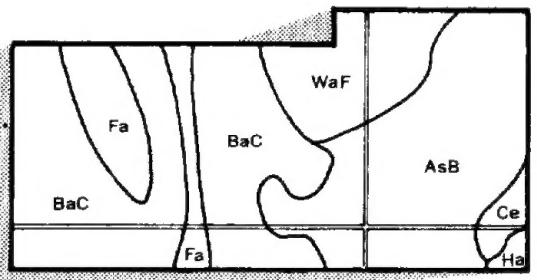




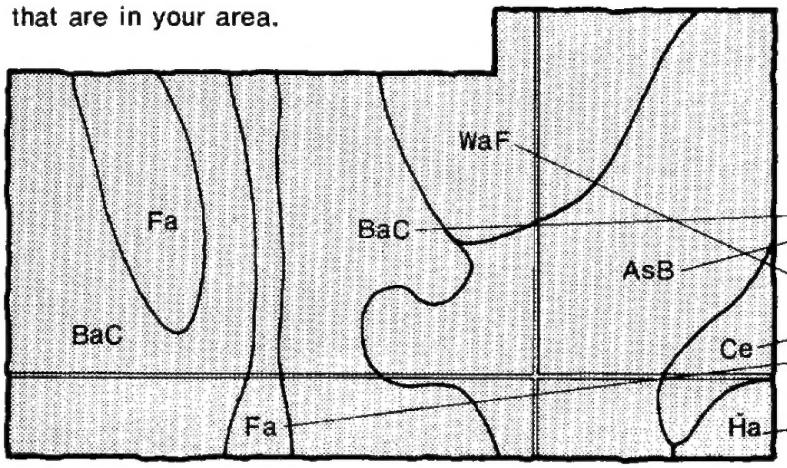
2. Note the number of the map sheet and turn to that sheet.

3. Locate your area of interest on the map sheet.





4. List the mapping unit symbols that are in your area.



Symbols

AsB
BaC
Ce
Fa
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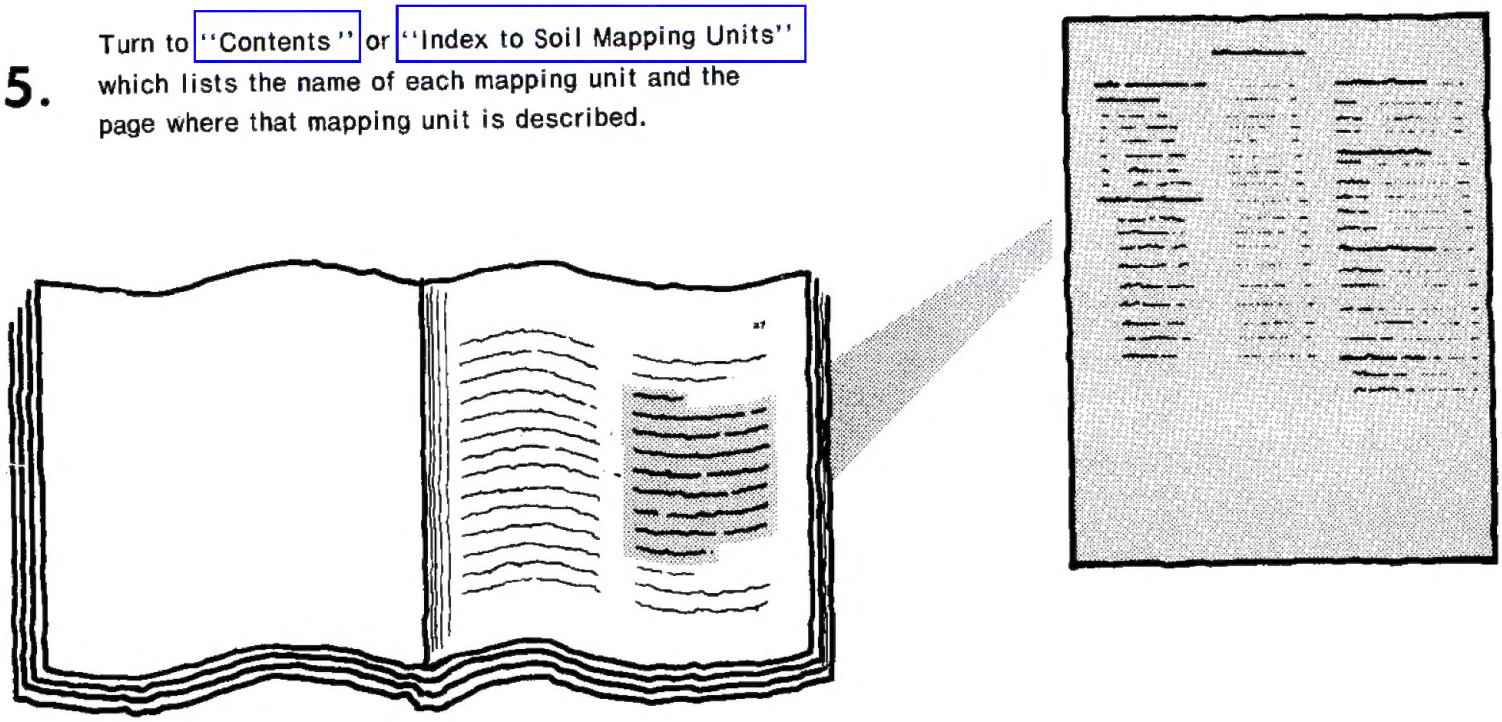
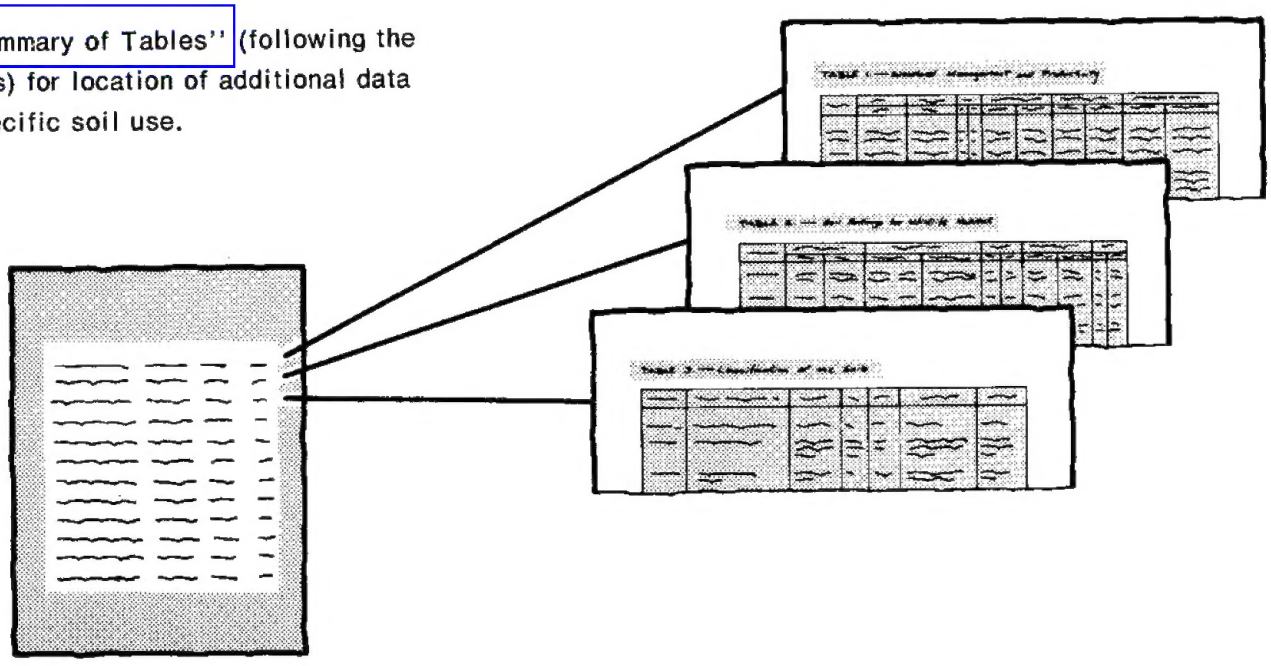
WaF

THIS SOIL SURVEY

5. Turn to "Contents" or "Index to Soil Mapping Units" which lists the name of each mapping unit and the page where that mapping unit is described.



6. See "Summary of Tables" (following the Contents) for location of additional data on a specific soil use.



7. Consult "Contents" for parts of the publication that will meet your specific needs. This survey contains useful information for farmers or ranchers, foresters or agronomists; for planners, community decision makers, engineers, developers, builders, or homebuyers; for conservationists, recreationists, teachers, or students; for specialists in wildlife management, waste disposal, or pollution control.

This is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and agencies of the States, usually the Agricultural Experiment Stations. In some surveys, other Federal and local agencies also contribute. The Soil Conservation Service has leadership for the Federal part of the National Cooperative Soil Survey. In line with Department of Agriculture policies, benefits of this program are available to all who need the information, regardless of race, color, national origin, sex, religion, marital status, or age.

Major fieldwork for this soil survey was completed in the period 1970-71. Soil names and descriptions were approved in 1974. Unless otherwise indicated, statements in the publication refer to conditions in the county in 1974. This survey was made cooperatively by the Soil Conservation Service and the Louisiana Agricultural Experiment Station. It is part of the technical assistance furnished to the St. Martin Soil and Water Conservation District.

Soil maps in this survey may be copied without permission, but any enlargement of these maps could cause misunderstanding of the detail of mapping and result in erroneous interpretations. Enlarged maps do not show small areas of contrasting soils that could have been shown at a larger mapping scale.

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Issued *April 1977*

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Summary of Tables

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Foreword

The soil survey of St. Martin Parish can help you and your community to plan and to use wisely one of our most precious natural resources—the soil.

This soil survey is intended for many different users. It can help a homebuyer or developer determine soil-related hazards or limitations that affect homesites. It can help land use planners determine the suitability of areas for housing or onsite sewage disposal systems. This survey can help a farmer estimate the potential crop or forage production of his land. It can be used to determine the suitability and limitations of soils for pipelines, buildings, landfills, recreation areas, and many other uses.

Why do we need soil information? Many people assume that soils are all more or less alike. They are unaware that great differences in soil properties can occur within even short distances.

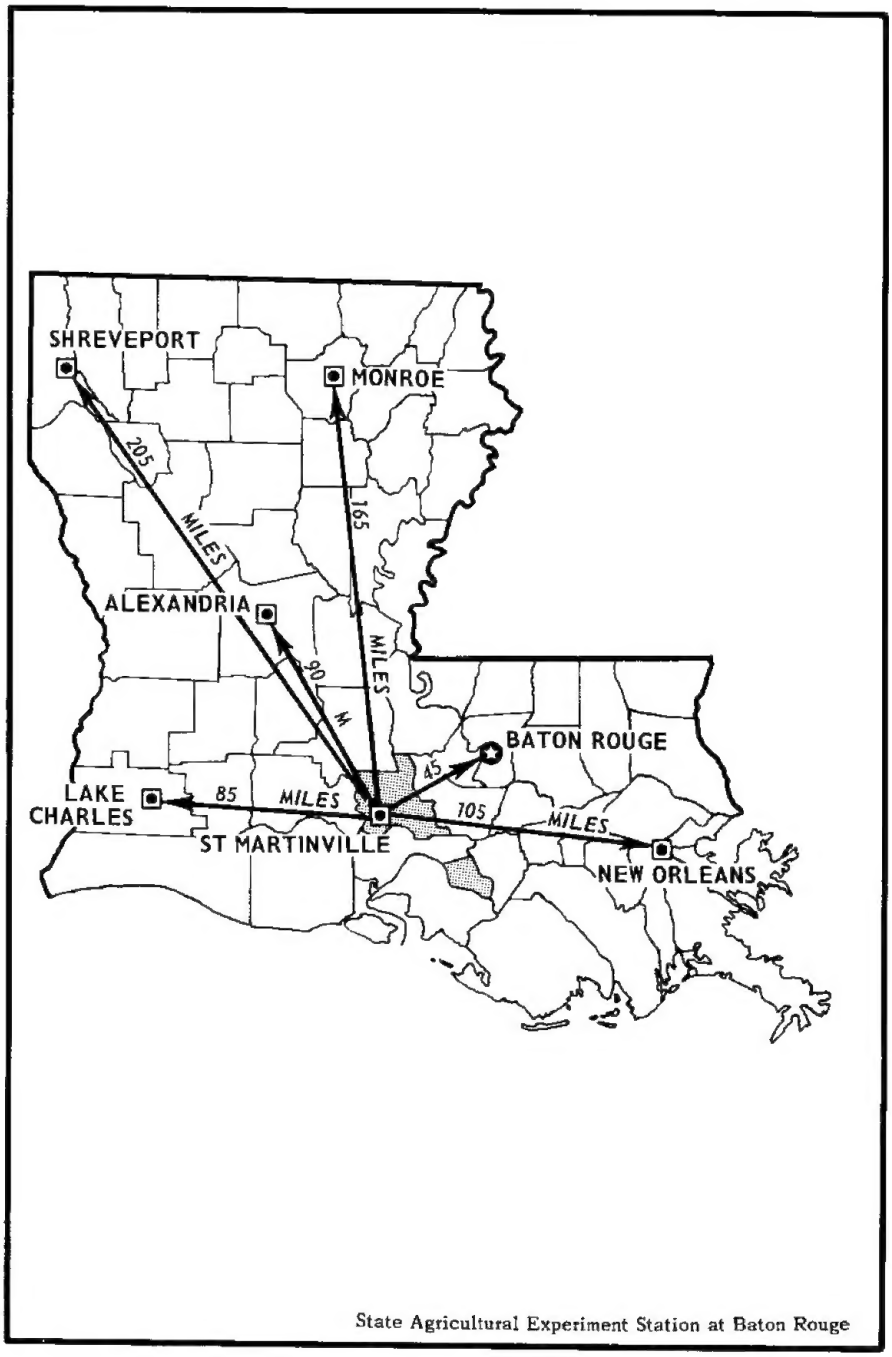
Soils may be seasonally wet or subject to flooding. They may be too unstable to be used as a foundation for buildings or roads. Very clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. The survey also shows the location of broad areas of soils on the general soil map and the location of each soil on detailed maps at the back of this publication. It provides descriptions of each kind of soil in the survey area and gives information about each soil for specific uses. Highlighted are soil-related hazards, limitations, and potential for various land uses.

If you need additional information or assistance in using this survey, please call your local office of the Soil Conservation Service or the Cooperative Extension Service. The district conservationist or soil scientist assigned to the St. Martin Soil and Water Conservation District or the Parish extension director can assist you.

I believe that this soil survey, along with other resource information, will enable you to have a better environment and a better life. The widespread use of this publication can greatly assist all of us in the conservation, development, and productive use of our soil, water, and other resources.

State Conservationist
Soil Conservation Service



Location of St. Martin Parish in Louisiana.

SOIL SURVEY OF ST. MARTIN PARISH, LOUISIANA

By Kenneth E. Murphy, B. Arville Touchet, Almond G. White, Jerry J. Daigle, and Henry L. Clark

United States Department of Agriculture, Soil Conservation Service, in cooperation with the Louisiana Agricultural Experiment Station

Introduction

ST. MARTIN PARISH is in the south-central part of Louisiana, about 3 miles east of the city of Lafayette. It is divided into two parts by Iberia Parish.

According to the 1969 Louisiana Soil and Water Conservation Needs Inventory, the total area of St. Martin Parish is 522,225 acres of which 483,304 acres is land and 38,921 acres is water in the form of lakes, bayous, and the Atchafalaya River. The Atchafalaya River and its distributaries flow through the eastern part of the parish. Bayou Teche and its distributaries flow through the central and western part of the parish. Both streams in general flow from the northwest to the southeast. According to the 1970 census, the population of the parish was 32,453. St. Martinville, with a population of 7,153, is the largest town and is the parish seat. This parish is chiefly rural and is populated mostly by people of French ancestry. There has been no significant trend toward changing land use.

The parish is made up of two major physiographic areas—the terrace uplands and the Mississippi River alluvial plain. Elevation ranges from near sea level in the low backswamp areas of the alluvial plain in the eastern part of the parish to about 38 feet above sea level on the terrace uplands in the southwestern part of the parish.

The terrace uplands in the western part of the parish consist of three areas: an area of nearly level to moderately sloping soils in the extreme southwestern part of the parish; a small area of nearly level soils on the Anse La Butte salt dome at the northwestern edge of the parish; and another small nearly level area in the extreme northwestern part of the parish. The soils on the terrace uplands formed in loess and have a low sand content. They are generally low in natural fertility but respond well to fertilizers. The soils on the terrace uplands are used mostly for crops, pasture, and homesites. Sugarcane is the main crop.

The Mississippi River alluvial plain makes up the remaining part of the parish. The soils of the alluvial plain formed in sediments of the Mississippi, Atchafalaya, and Red Rivers.

Most of the eastern half of the alluvial plain is in the Atchafalaya Basin Floodway. The floodway is part of a complex flood control system operated by the U. S. Corps of Engineers. Since 1963, control locks have been regulated to divert about 30 percent of the Mississippi River water into the Atchafalaya River distributary. All of the floodway is subject to flooding. Much of the area is subject to scouring and deposition. Floodway flow rights are owned by the Federal Government. The area is mainly uninhabited, although a few hunting lodges have been built at high points on natural levees where flooding is less of a hazard. The soils within the floodway are used mostly for woodland, fish, wildlife habitat, and recreation. Many tons of deep water crawfish are harvested from swamps within the floodway each year. A significant amount of oil and gas is also produced in these areas.

The part of the alluvial plain that is outside the Atchafalaya Basin Floodway is mostly in the central and western part of the parish. A small area is outside the floodway at the eastern edge of the parish. The east and west Atchafalaya Basin protection levees protect most of the alluvial plain from flooding by waters of the Atchafalaya River. Nevertheless, some soils at a low elevation are flooded by runoff from higher areas. The natural levees of Bayou Teche and its distributaries make up most of the area outside the floodway. Nearly level loamy soils are dominant on the higher part of the natural levees. These soils are medium in natural fertility, but response to fertilizers is good. Their loamy texture, nearly level slopes, and fairly good surface drainage make these soils choice for crops. Most of the acreage is in crops and a small acreage is in homesites and pasture. Sugarcane is the main crop. The high elevation makes these soils ideal homesites, because they have a minimal chance of being flooded. Level clayey soils are dominant on the lower part of the natural levees and in areas adjacent to the levees. The natural fertility of these clayey soils is high. Drainage is needed for most crops. Most of the area is in crops, mainly sugarcane, rice, and soybeans. These soils are also used for crawfish farming (fig. 1). Level clayey soils are also dominant in the swamp areas outside

the Atchafalaya Floodway. These soils are flooded most of the time. They are used mostly for woodland and wildlife habitat. A small acreage is used for crawfish farming.

History

The original inhabitants of the area were the Attakapas Indians, whose name means "maneaters." In 1765, the first white settlement, called the "Postes des Attakapas," was established by the French government near the present site of St. Martinville. The early settlers were from Nova Scotia, the Canary Islands, France, and New Orleans.

St. Martin Parish was established by the Territorial Legislature in 1807. It was called Attakapas County and included the present parishes of St. Mary, Lafayette, Vermilion, Iberia, and part of Iberville. In 1811, the area was named St. Martin Parish, in honor of St. Martin who was Bishop of Tours from 371 to 397 A.D. St. Martinville, the parish seat, was for many years the center of culture and at one time was a summer resort for New Orleans society and for writers and artists. It is famous as the final resting place of Emmeline Labiche, who is said to be the original Evangeline of the poem by Longfellow.

Agriculture

According to the U.S. Census of Agriculture and the Louisiana Cooperative Extension Service's 1973 annual report, the total number of farms in the parish in 1969 was 774. The value of the average farm including land and buildings was about 49,678 dollars. Total cropland in the parish was 93,000 acres. The estimated gross value of all agricultural products in 1972-1973 was 15.1 million dollars.

Sugarcane is the principal crop. In 1972 sugarcane was on 21,000 acres and yielded 23 tons per acre. About 12,000 acres of soybeans are grown annually. In 1972 the six major crops in order of cash value were sugarcane, horticultural crops, soybeans, rice, corn, and cotton. Other crops grown in the parish are okra, peppers, sweet potatoes, and cabbage.

In 1970, 11.9 percent of the total population of the parish was employed in agriculture, forestry, and fishery enterprises, and the farm population was 1,963. This is a 63.8 percent decrease since 1960.

Climate

GEORGE W. CRY, climatologist for Louisiana, National Weather Service, U.S. Department of Commerce, Baton Rouge, prepared this section.

St. Martin Parish has a humid, subtropical climate. It is characterized by long, hot and humid summers, and short, mild and humid winters. Copious rains fall throughout the year, but the fall months generally get less. Occasional outbreaks of cold continental air in winter cause an abrupt and rather large drop in temperature, but cold spells seldom last more than 3 days. Table 1 gives data on temperature and precipitation and table 2 gives data on the probability of last freezing temperatures in spring and first in fall.

St. Martin Parish experiences a wide range in temperature throughout the year, but the extremes are not so great as further inland. In table 1, the probable very high and very low temperatures are shown. In 2 years in 10, July and August will have at least 4 days with temperatures of 97 degrees F or higher, and December and January will have at least 4 days with temperatures of 28 degrees or lower.

A temperature of 90 degrees or higher occurs on an average of 100 days from May through October. When temperatures are 90 degrees or higher, relative humidity never exceeds 79 percent. It ranges between 50 and 79 percent, however, during 62 percent of the hours with such high temperatures. In winter when the temperature is below 50 degrees, relative humidity is 50 percent or higher 92 percent of the time, and is 80 to 100 percent during 46 percent of the time. A temperature of 32 degrees or lower occurs on an average of 15 days in winter. There is only a 25 percent chance of the temperature dropping to 20 degrees or lower in an average winter.

Rainfall is distributed fairly evenly throughout the year and is at a minimum in October, which is characteristic of the state. Over a span of 67 years, annual rainfall has varied from 36 to nearly 100 inches. Snow is generally light and occurs at intervals of several decades. In February of 1895, however, a record-setting 14 to 20 inches of snow fell in the parish.

Precipitation is adequate for crops that require plenty of moisture, but in some years precipitation is either inadequate or excessive. Table 1 shows that on an average of 1 year in 10 June will have less than 1.30 inches or more than 10.72 inches.

During the past 85 years, 5 hurricanes have crossed the parish, as have the centers of 8 tropical storms. Winds of hurricane force occur about once in 29 years in the northwestern part of the parish and once in 10 years in the lower cutoff portion of the parish. Gales from hurricanes and tropical storms occur about once in 7 years in the main part of the parish and once in 5 years in the lower cutoff part. Tornadoes can be expected about once in 8 years, damaging hailstorms once in 20 years, and severe thundersqualls once in 14 years.

Landforms and Quaternary Geologic History

St. Martin Parish includes a group of landforms and geologic formations characteristic of southern Louisiana. The Prairie Terrace (terrace uplands) formed by ancestral Mississippi Rivers late in the Pleistocene Epoch occurs in the extreme northwestern and southwestern parts of the parish. The Mississippi River alluvial plain consists of large natural levee ridges. Those in the central and

western parts of the parish were laid down by the Teche-Mississippi River about 5,000 to 6,000 years ago; and the swamps and natural levee ridges of the Atchafalaya River and its distributaries, characteristic of the contemporary Atchafalaya Basin, are in the eastern part of the parish. Above the terrain of the Mississippi River alluvial plain at the northwestern edge of the parish stands the Anse La Butte salt dome.

These landforms are described in the following paragraphs.

MISSISSIPPI RIVER ALLUVIAL PLAIN. The alluvial plain makes up over 97 percent of the parish. It consists of sediments deposited by the Mississippi, Atchafalaya, and Red Rivers within the last 5,000 to 6,000 years. The Bayou Teche natural levee and the Atchafalaya Basin are subdivisions of the Mississippi River alluvial plain.

BAYOU TECHE NATURAL LEVEE. With the rise of the sea to near its present level about 6,000 years ago, a series of channels and deltaic plains formed across the alluvial valley of the Mississippi River. One of the oldest of these, laid down some 5,000 years ago, is now Bayou Teche (*7*). The great width of the natural levees bordering Bayou Teche, often more than 2 miles, attests to the fact that the channel once carried the full flow of an ancient Mississippi River. Subsequently the Mississippi occupied new courses farther to the east, but the Teche channel was never completely abandoned. Several red-colored natural levees, inset and approximately 10 feet lower than old Mississippi-Teche levees, show that the Red River flowed at least once down the present channel. Red River sediments are also along Catahoula Coulee, Bayou Fusalier, and Vermilion River. This is evidence that waters from the Red River were distributed through these channels during the time that it occupied the Teche-Mississippi channel (*8*).

ATCHAFALAYA BASIN. The Atchafalaya Basin is the low-lying system of lakes and swamps between the natural levees of Bayou Teche on the west and Bayou Lafourche on the east. The eastern part of St. Martin Parish extends across swamps and lakes of the basin. The Atchafalaya River, the main Mississippi River distributary, carries a portion of the Mississippi River plus the entire Red River flow. As a result the lakes and swamps of the Atchafalaya Basin Floodway are rapidly filled and loamy sediments rapidly build natural levees within the floodway. Lands outside the Atchafalaya Basin Floodway receive only a small amount of sediment each year.

PRAIRIE TERRACE. The Prairie Terrace (terrace upland) in the extreme northwestern and southwestern parts of the parish makes up less than 3 percent of the total acreage. At the town of Cade, where the topography is slightly undulating, as is characteristic of the Prairie Terrace, streamborne sediments were laid down by ancestral channels of the Mississippi River in late Pleistocene time (*5*). Traces of old Mississippi River meander loops are still apparent on topographic maps and aerial photographs.

Most of the Prairie Terrace in this region was apparently deposited when sea level was higher than at present, probably during interglacial time. That particular part of the Prairie Formation within St. Martin Parish is known as the Vermilion Prairie, because the Vermilion River mainly follows the old Mississippi meander loops which debouched into an ancient deltaic plain far seaward from the present Gulf Coast.

In late Prairie time, the lower course of the Mississippi River shifted to the east, occupying channels in what is now Terrebonne Parish. This phase of Prairie deposition ended when sea level was lowered about 400 feet during the last major glaciation (Wisconsin), and the Mississippi River entrenched its alluvial valley (*6*). During this time the meandering Mississippi River scalloped the walls along the western side of its valley, forming a 15-foot escarpment in the southwestern part of the parish that separated the older Prairie terrace in the west from the younger Mississippi River alluvial plain in the east (fig. 2).

Following deposition of the Prairie Terrace, wind-blown silt (loess) mantled the terrace surface. The loess is about 15 feet thick near the escarpment of the Mississippi River alluvial plain, but it thins about 6 inches a mile as it extends westward. The loess is thought to be derived from a source under the present Mississippi Valley, east of St. Martin Parish (*4*).

SALT DOMES. A salt dome is a localized domal anticline, formed by the intrusion of roughly cylindrical plugs of salt that originate in sedimentary beds, usually at a great depth. The origin of salt domes is quite complex. It is thought to be related mainly to piercement, or piercing, of the overlying sediments by the salt as it is forced upward by regional subsidence and differences in specific gravity between salt and sediments (*9*). The Anse La Butte, Bayou Bouillon, and Section 28 salt domes occur in St. Martin Parish. The best known and most prominent dome is Anse La Butte. This dome stands at an elevation of approximately 17 feet above the surrounding alluvial plain. It is mantled with several feet of loess. This salt dome has long been a source of salt and petroleum. The loess mantle at the lower elevations around the base of the dome is buried by alluvial sediments. Locally parts of the Anse La Butte salt dome have collapsed as a result of subsurface solution, a phenomenon which is producing topographic features such as Flat Lake (*8*). The Bayou Bouillon and Section 28 salt domes have had little or no influence on topography.

Water Supply

GEORGE T. CARDWELL, hydrologist, Geological Survey Water Resources Division, U.S. Department of the Interior, Baton Rouge, Louisiana, prepared this section.

The Atchafalaya River forms the eastern boundary of St. Martin Parish, and Bayou Teche crosses the western part of the parish. These two large streams plus numerous canals, lakes, and smaller streams constitute an

abundant surface-water resource for the parish in addition to supporting navigation. At Arnaudville, where Bayou Teche enters St. Martin Parish, the average annual discharge (1949-73) is 592,600 acre-feet of water; at Keystone Lock below St. Martinville the average discharge (1959-73) is 339,100 acre-feet per year. The average annual discharge of the Atchafayala River is about 122,600,000 acre-feet.

St. Martin Parish also has large quantities of fresh ground water available in the Chicot aquifer. Most wells utilize the upper part of the Chicot and are less than 300 feet deep. Where fresh water occurs to a depth of more than 1,000 feet in the southwestern part of the parish, however, the water in the upper part of the aquifer is characteristically hard and high in iron content. If it is fresh, the water in the lower part of the aquifer is soft and has a much lower iron concentration than water in the upper part. Well water yields range as high as 2,000 gallons a minute for large irrigation wells. Water levels fluctuate seasonally, but in the spring they generally are less than 20 feet below the surface.

Transportation

St. Martin Parish is served by two railroad lines, one Interstate highway, one United States highway, and numerous other paved State highways and parish roads. The Atchafalaya River, which is in the extreme eastern part of the parish, is a navigable waterway for large barges. Also Bayou Teche, in the central and western parts of the parish, is a navigable waterway for small barges as far north as Breaux Bridge.

How This Survey Was Made

Soil scientists made this survey to learn what kinds of soil are in the survey area, where they are located, and how they can be used. The soil scientists went into the area knowing they likely would locate many soils they already knew something about and perhaps identify some they had never seen before. They observed the steepness, length, and shape of slopes, the size of streams and the general pattern of drainage, the kinds of native plants or crops, the kinds of rock, and many facts about the soils. They dug many holes to expose soil profiles. They referred to the less detailed 1919 Soil Survey of St. Martin Parish (*10*). A profile is the sequence of natural layers, or horizons, in a soil; it extends from the surface down into the parent material, which has been changed very little by leaching or by the action of plant roots.

The soil scientists made comparisons among the profiles they studied, and they compared those profiles with others in parishes nearby and in places more distant. They classified and named the soils according to nationwide, uniform procedures. The *soil series* and the *soil phase* are the categories of soil classification most used in a soil survey.

Soils that have profiles almost alike make up a soil series. Except for different texture in the surface layer, all the soils of one series have major horizons that are similar in thickness, arrangement, and other important characteristics. Each soil series commonly is named for a town or a geographic feature near the place where a soil of that series was first observed and mapped. Gallion and Memphis, for example, are the names of two soil series. All the soils in the United States having the same series name have many of the same characteristics.

Soils of one series can differ in texture of the surface layer and in slope, stoniness, or some other characteristic that affects use of the soils. On the basis of such differences, a soil series is divided into phases. The name of a soil phase indicates a feature that affects management. For example, Memphis silt loam, 1 to 3 percent slopes, is one of several phases within the Memphis series.

After a guide for classifying and naming the soils was worked out, the soil scientists drew the boundaries of the individual soils on aerial photographs. These photographs show woodlands, buildings, field borders, trees, and other details that help in drawing boundaries accurately. The soil map in the back of this publication was prepared from aerial photographs.

The areas shown on a soil map are called mapping units. On most maps detailed enough to be useful in planning the management of farms and fields, a mapping unit is nearly equivalent to a soil phase. It is not exactly equivalent because it is not practical to show on such a map all the small, scattered bits of soil of some other kind that have been seen within an area that is dominantly of a named soil phase. Some mapping units are made up of soils of different series, for example, Coteau-Frost complex, gently undulating.

While a soil survey is in progress, samples of soils are taken as needed for laboratory measurements and for engineering tests. The soils are field tested and their suitabilities and limitations (interpretations) are modified as necessary during the course of the survey, and new interpretations are added to meet local needs. This is done mainly through field observations of behavior of different kinds of soil for different uses under different levels of management. Also, data are assembled from other sources, such as test results, records, field experience, and information available from state and local specialists. For example, data on crop yields under defined practices are assembled from farm records and from field or plot experiments on the same kinds of soil.

But only part of a soil survey is done when the soils have been named, described, interpreted, and delineated on aerial photographs and when the laboratory data and other data have been assembled. The mass of detailed information then needs to be organized so that it is readily useful to different groups of users, among them farmers, managers of woodland, engineers, planners, developers and builders, homebuyers, and those seeking recreation. The detailed information is presented in an organized, understandable manner in this publication.

Soil Map for General Planning

The general soil map at the back of this survey shows, in color, the soil associations in the survey area. A soil association is a landscape that has a distinctive pattern of soils in defined proportions. It typically consists of one or more major soils and at least one minor soil, and it is named for the major soils. The soils in an association can occur in other associations, but in different patterns.

A map showing soil associations is useful to people who want to have a general idea of the soils in a survey area, who want to compare different parts of that area, or who want to locate large tracts that are suitable for a certain kind of land use. Such a map is a useful general guide for broad planning of a watershed, a wooded tract, or a wildlife area or for broad planning of recreation facilities, community developments, and as transportation corridors. It is not a suitable map for planning the management of a farm or field or for selecting a site for a road or building or other structure, because the soils within an association ordinarily vary in slope, depth, drainage, and other characteristics that affect their management.

St. Martin Parish is joined by St. Mary Parish on the south and the upper part of St. Martin Parish is separated from the lower part by Iberia Parish. There are differences in the components of the associations joined on the general soil maps of these parishes. These differences are mainly due to different proportions of soils occuring in each parish. Also along the St. Mary Parish boundary alluvial sediments have covered soil associations and filled large water areas since the fieldwork for that parish was completed in 1952.

The relationship of soil associations to elevation is illustrated in figure 3.

The soil associations in this survey area are described on the pages that follow.

1. Dundee-Loreauville Association

Nearly level, loamy soils on the alluvial plain

This association consists of loamy soils that are mainly at the highest elevation on natural levees of Bayou Teche and Catahoula Coulee in the western part of the parish. Slope is less than 1 percent. Elevation ranges from 20 to 25 feet above sea level. The west Atchafalaya Basin protection levee protects this association from flooding by the Atchafalaya River.

The association makes up about 12 percent of the parish. It consists of about 46 percent Dundee soils and 39 percent Loreauville soils. Gallion, Perry, and Baldwin soils make up most of the remaining 15 percent of the association.

Dundee soils are at the highest elevation on the natural levees. Typically the surface layer is dark grayish brown silt loam 7 inches thick. The subsoil, which extends to a depth of 42 inches, is grayish brown silty clay loam. The underlying material is gray silty clay. These soils are somewhat poorly drained and moderately slowly permeable.

Loreauville soils are at a slightly lower elevation on the natural levees than the Dundee soils. Typically the surface layer is very dark grayish brown silt loam 8 inches thick. The subsoil extends to a depth of 24 inches and is grayish brown silty clay loam. The layer below that, extending to a depth of 48 inches, is olive gray loam. The underlying material is olive gray silt loam. These soils are somewhat poorly drained and moderately slowly permeable.

Of minor extent in this association are Gallion, Perry, and Baldwin soils. Most of the Gallion and Perry soils are on the natural levees immediately adjacent to Bayou Teche and Catahoula Coulee. The Baldwin soils are at a lower elevation on the natural levees.

Most of the acreage is in crops. Sugarcane is the principal crop. A small acreage is in homesites and pasture. Most of the farms are large and privately owned.

The loamy texture, the nearly level slopes, and the high natural fertility make the soils of this association choice land for cultivated crops. The high elevation and loamy texture make them desirable homesites (fig. 4).

Wetness is the main limitation for most uses of these soils. Low strength and shrink-swell potential limit their use for foundations or construction material. The present trend is for most of the acreage to remain in crops.

2. Sharkey-Baldwin-Iberia Association

Level to gently undulating, mainly clayey soils on the alluvial plain

This association consists of clayey soils at a low elevation adjacent to and on the natural levees of Bayou Teche and Catahoula Coulee in the western part of the parish. Elevation is mainly 10 to 25 feet above sea level. The west Atchafalaya Basin protection levee protects this association from flooding by the Atchafalaya River.

This association makes up about 18 percent of the parish. It consists of about 36 percent Sharkey soils, 33 percent Baldwin soils, and 25 percent Iberia soils. Dundee and Loreauville soils and Sharkey soils that frequently flood make up most of the remaining 6 percent of the association.

Sharkey soils are at the lowest elevation. They are generally on broad, level areas adjacent to the natural levees. Typically the surface layer is dark gray clay 5 inches thick. The subsoil, which extends to a depth of 25 inches, is dark gray clay. The next layer, extending to a depth of 52 inches, is gray clay. The underlying material is gray silty clay loam. These soils are poorly drained and very slowly permeable.

Baldwin soils are at the highest elevation. Typically the surface layer is dark gray silty clay loam 6 inches thick. The subsoil extends to a depth of 20 inches and is dark gray silty clay. The next layer extends to a depth of 26 inches and is gray silty clay loam. That layer is underlain by stratified dark gray silty clay and gray silty clay loam. These soils are poorly drained and very slowly permeable.

Iberia soils are at an intermediate elevation. Typically the surface layer is very dark gray silty clay 14 inches thick. The subsoil extends to a depth of 37 inches and is gray clay. The underlying material is light olive gray clay. These soils are poorly drained and very slowly permeable.

Of minor extent in this association are Dundee and Loreauville soils and Sharkey soils that frequently flood. The Dundee and Loreauville soils are at a higher elevation than the Baldwin soils. The Sharkey soils that frequently flood are mostly at an elevation of less than 10 feet.

Most of the acreage is in crops and pasture. A small acreage is in woodland. Most of the farms are large and privately owned.

The soils of this association are suitable to most crops and pasture plants grown in the parish. They are also suitable for development for wetland wildlife habitat. The very slow permeability of these soils make them desirable for rice culture and crawfish farming. Wetness is the principal limitation for most uses of these soils. Low strength and high shrink-swell potential limit their use for foundations or construction material. The present trend is for most of the acreage to remain in crops and pasture.

3. Memphis-Frost-Coteau Association

Level to moderately sloping, loamy soils on the terrace uplands

This association consists of loamy soils on ridges and in swales and along drains in the southwest corner of the parish. Elevation is mainly 25 to 38 feet above sea level.

This association makes up about 2 percent of the parish. It consists of about 50 percent Memphis soils, 25 percent Frost soils, and 13 percent Coteau soils. Patoutville and Calhoun soils make up most of the remaining 12 percent of the association.

Memphis soils are at the highest elevation. They occur on ridges. Typically the surface layer is dark brown silt loam 7 inches thick. The subsoil extends to a depth of 40 inches and is dark brown silty clay loam. Below this layer is dark yellowish brown silt loam. These soils are well drained and moderately permeable.

Frost soils are at the lowest elevation. They occur along the drains and in swales. Typically the surface layer is dark gray silt loam 6 inches thick. The subsurface layer is 14 inches of gray silt loam. The subsoil to a depth of 30 inches is gray silty clay loam. Below that to a depth of 46 inches it is light brownish gray silty clay loam. The underlying material is light brownish gray silt loam. These soils are poorly drained and slowly permeable.

Coteau soils are at a high elevation but are slightly lower than the Memphis soils. Typically the surface layer is dark brown silt loam 8 inches thick. The subsoil extends to a depth of 26 inches and is dark brown silt loam. The next layer to a depth of 70 inches is light brownish gray silt loam. These soils are somewhat poorly drained and moderately slowly permeable.

Of minor extent in this association are Calhoun and Patoutville soils. The Calhoun soils are in depressional areas. The Patoutville soils are closely associated with the Coteau soils.

Most of the acreage is in crops. Sugarcane is the main crop. A small acreage is in homesites and pasture. Most of the farms are large and privately owned.

The soils of this association are suited to most crops and pasture plants grown in the parish. They are easy to work. Erosion control practices are necessary when they are used for crops. The high elevation and loamy textures make the soils desirable homesites.

The main limitation for most uses of the Frost and Coteau soils is wetness. Low strength and high shrink-swell potential limit the use of all the soils for foundations or construction material. The present trend is for most of the acreage to remain in crops.

4. Acy-Coteau Association

Nearly level, loamy soils on the terrace uplands

This association consists of loamy soils on the terrace uplands in the northwest part of the parish. Elevation is mainly 17 to 22 feet above sea level. The west Atchafalaya Basin protection levee protects this association from flooding by the Atchafalaya River.

This association makes up about 1 percent of the parish. It consists of about 52 percent Acy soils and 32 percent Coteau soils. Frost, Calhoun, and Baldwin soils make up most of the remaining 16 percent of the association.

Acy soils are at the lowest elevation on the islands of terrace uplands. Typically the surface layer is dark grayish brown silt loam about 6 inches thick. The subsoil extends to a depth of 16 inches and is grayish brown silty clay loam. The next layer is 8 inches of yellowish brown silty clay loam. Below that, to a depth of 56 inches, is yellowish brown silt loam. The underlying material is gray silt loam. These soils are somewhat poorly drained and moderately slowly permeable.

Coteau soils are at the highest elevation on the islands of terrace uplands. Typically the surface layer is dark grayish brown silt loam about 7 inches thick. The subsoil extends to a depth of 13 inches and is dark brown silty clay loam. The next layer is 19 inches of brown silty clay loam. Below this layer is brown silt loam. These soils are somewhat poorly drained and moderately slowly permeable.

The minor soils in this area are Frost, Calhoun, and Baldwin soils. Frost soils are in swales between low ridges. Calhoun soils are in depressional areas. Baldwin soils are along drains at a lower elevation than the Acy soils.

Most of the acreage is in pasture and the Anse La Butte oil and gas field. Most of the farms are small and privately owned.

The loamy texture, the nearly level slopes, and the fairly high natural fertility of the soils make this associa-

tion choice land for cultivated crops. It is suited to most crops and pasture plants grown in the parish.

Wetness is the principal limitation for most uses. Low strength and shrink-swell potential are limitations to use of the soils for foundations or construction material. The present trend is for the association to remain in pasture and oil and gas production.

5. Fausse-Sharkey Association

Level, clayey soils on the alluvial plain

This association consists of clayey soils at a low elevation adjacent to the Bayou Teche natural levee in the central and western part of the parish and along the eastern edge of the parish outside the Atchafalaya Floodway. The association is subject to frequent flooding received from runoff from higher areas. Elevation is mostly less than 10 feet above sea level. The east and west Atchafalaya Basin protection levees protect the soils of the association from flooding by the Atchafalaya River.

This association makes up about 12 percent of the parish. It consists of about 52 percent Fausse soils and 45 percent Sharkey soils. Iberia soils and Sharkey soils that are not subject to flooding make up most of the remaining 3 percent of the association.

Fausse soils are at the lowest elevation. Typically the surface layer is dark grayish brown mucky clay 4 inches thick. The subsoil extends to a depth of 28 inches and is gray clay. The underlying material is greenish gray clay. These soils are very poorly drained and very slowly permeable.

Sharkey soils are at the highest elevation in the association. Typically the surface layer is dark gray clay 4 inches thick. The subsoil extends to a depth of 17 inches and is slightly acid dark gray clay. The next layer is 31 inches of gray clay. The underlying material is gray clay.

Of minor extent in this association are Iberia and Sharkey soils that generally are not subject to flooding. The Iberia and Sharkey soils are mostly at an elevation of more than 10 feet.

Practically all of the acreage is in woodland (fig. 5). This association is used mostly for wildlife habitat and recreation such as hunting and fishing. A small acreage is oil and gas fields. Most of the acreage is owned by corporations and the State of Louisiana. Large areas have been developed for crawfish farming.

Flooding and wetness are the main limitations for most uses. Low strength and high shrink-swell potential limit the use of these soils for foundations or construction material. The present trend is for most of the association to remain in woodland.

6. Fausse Association

Level, clayey soils that are inside the Atchafalaya Basin Floodway on the alluvial plain

This association consists of clayey soils at a low elevation in swamp areas inside the Atchafalaya Basin Floodway. The soils are subject to frequent flooding by the Atchafalaya River. Elevation is mainly about 10 feet above sea level in the northern part of the parish and about 1 foot in the southern part.

This association makes up about 37 percent of the parish. It consists of about 95 percent Fausse soils. Convent soils make up most of the rest.

Fausse soils are on broad, level to concave areas and in basins surrounded by high natural levees. Typically the surface layer is dark grayish brown mucky clay 7 inches thick. The subsoil extends to a depth of 16 inches and is dark gray clay. The next layer is 14 inches of gray clay. The underlying material is greenish gray clay. These soils are very poorly drained and very slowly permeable.

Of minor extent in this association are Convent soils. They are on natural levees of the Atchafalaya River distributaries at a higher elevation than Fausse soils.

All of the acreage is in woodland and is part of the Atchafalaya Basin Floodway. Some areas are used as wildlife habitat and for hunting and fishing. A small acreage is oil and gas fields. The Fausse soils are natural habitat for deepwater crawfish. Most of the acreage is owned by the State of Louisiana and by corporations, floodway flow rights belong to the Federal government.

Flooding, scouring, deposition, wetness, and a high water table are the main limitations for most uses. Low strength and high shrink-swell potential limit the use of the soils for foundations or construction material.

7. Convent Association

Nearly level, loamy soils that are inside the Atchafalaya Basin Floodway on the alluvial plain

This association consists of loamy soils on natural levees at the highest elevation inside the Atchafalaya Basin Floodway. Most of this association is subject to frequent flooding by the Atchafalaya River. Elevation is mainly about 25 to 30 feet above sea level in the northern part of the parish and about 3 feet in the southern part. The highest areas are less frequently flooded.

This association makes up about 18 percent of the parish. It consists of about 91 percent Convent soils. Fausse soils make up most of the remaining 9 percent.

Convent soils are on the natural levees of the Atchafalaya River and its distributaries and in lake-fill. Typically the surface layer is dark grayish brown silt loam 4 inches thick. Below that is 24 inches of grayish brown very fine sandy loam. The next layer is 12 inches of grayish brown silt loam. Below that is a layer of grayish brown very fine sandy loam. These soils are somewhat poorly drained and moderately permeable.

Fausse soils occur in swamp areas farthest from the distributary channels at a lower elevation than Convent soils.

All of the acreage is in woodland and is part of the Atchafalaya Basin Floodway. The soils of the association are used as wildlife habitat and for recreation. Most of the acreage is owned by the State of Louisiana and by

corporations. Floodway flow rights belong to the Federal government.

Flooding, scouring, and deposition are the main limitations for most uses.

Soil Maps for Detailed Planning

The kinds of soil (mapping units) shown on the detailed soil map at the back of this publication are described in this section. The descriptions together with the soil maps can be useful in determining the potential of soil and in managing it for food and fiber production, in planning land use and developing soil resources, and in enhancing, protecting, and preserving the environment. More information for each soil is given in the section "Use and Management of Soils."

Preceding the name of each mapping unit is the symbol that identifies the unit on the detailed soil map. Each mapping unit description includes general facts about the soil and a brief description of the soil profile. The potential of the soil for some of the various land uses is estimated, the principal hazards and limitations are indicated, and the management concerns and practices needed are discussed.

A mapping unit represents an area on the landscape and consists of a dominant soil or soils for which the unit is named. Most mapping units have one dominant soil, but some have two or more. A mapping unit commonly includes small, scattered areas of other soils, and the properties of some of these soils can differ substantially from those of the dominant soil and can greatly influence the use of the dominant soil.

The acreage and proportionate extent of each mapping unit are given in table 3, and additional information on each unit is given in interpretive tables in other sections (see "Summary of Tables"). Many of the terms used in describing soils are defined in the Glossary.

Ac—Acy silt loam. This soil is on the terrace uplands in the northwestern part of the parish. It formed in loamy loess deposits. Slope is 0 to 1 percent. The west Atchafalaya Basin protection levee protects this soil from flooding by the Atchafalaya River. The soil is associated with the more acid Coteau soils at higher elevations and the more clayey Baldwin soils at lower elevations. Included in mapping are small areas of Coteau, Patoutville, and Baldwin soils.

Typically the surface layer is neutral, dark grayish brown silt loam about 6 inches thick. The subsoil extends to a depth of 16 inches. It is mildly alkaline, grayish brown silty clay loam mottled with yellowish brown and has dark gray coatings on the surface of peds. The next layer is 8 inches of moderately alkaline, yellowish brown silty clay loam mottled with grayish brown. Below that is 32 inches of moderately alkaline, yellowish brown silt loam mottled with dark gray. The underlying material is moderately alkaline, gray silt loam mottled with yellowish brown.

This soil is fairly high in natural fertility. Plant roots penetrate it easily. Water and air move moderately slowly through the soil. Water runs off the surface at a slow rate and the surface layer is wet for significant periods in winter and spring. A seasonal high water table is 1.5 to 2.5 feet below the surface during the months of December through April. Sufficient water is generally available for plants in most years.

Most of the acreage is in pasture and crops. A large acreage is the Anse La Butte oil and gas field.

The nearly level slopes, loamy texture, and fairly high natural fertility make this one of the choice soils for crops. Suitable crops are sugarcane, cotton, soybeans, rice, and truck crops. Suitable pasture plants are common bermudagrass, Pensacola bahiagrass, ryegrass, improved bermudagrass, white clover, alyce clover, small grain, and annual lespedeza.

This soil is friable and somewhat easy to keep in good tilth. It can be worked over a somewhat wide range of moisture content. A surface drainage system is generally needed for most cultivated crops. Land grading or smoothing improves surface drainage and permits more efficient use of farm equipment. Proper management of crop residue helps to maintain the content of organic matter and reduces the soil loss caused by erosion. Irrigation is needed for growing rice. Most crops and pasture plants respond to complete fertilizers. Lime is generally not needed.

Wetness is a limitation if this soil is used for septic tank absorption fields, sanitary landfills, and homesites. Low strength limits its use for foundations or as construction material. Capability subclass IIw; woodland group 2w.

Ba—Baldwin silty clay loam. This soil is on the natural levees of Bayou Teche and Catahoula Coulee on the alluvial plain in the western part of the parish. It formed in clayey alluvium. Slope is 0 to 1 percent. The west Atchafalaya Basin protection levee protects this soil from flooding by the Atchafalaya River. This soil is associated with the better drained, less clayey Dundee and Loreauville soils that occur on higher parts of the natural levees and the more clayey Sharkey soils at a lower elevation.

Included with this soil in mapping are small areas of Dundee, Loreauville, and Sharkey soils. Also included is a small area of soils west of Bayou Teche and south of St. Martinville that are similar to the Baldwin soils but are more acid in the subsoil.

Typically the surface layer is medium acid, dark gray silty clay loam about 6 inches thick. The subsoil, which extends to a depth of 20 inches, is slightly acid, dark gray silty clay. The next layer is 6 inches of mildly alkaline, gray silty clay loam mottled with yellowish brown. Below this is mildly alkaline, stratified dark gray silty clay and gray silty clay loam mottled with olive.

This soil is fairly high in natural fertility. Plant roots penetrate it easily. Water and air move slowly through it. Water runs off the surface at a slow rate, and the surface layer is wet for long periods in winter and spring. A

seasonal high water table fluctuates between the surface and a depth of 2 feet in December through April. Plants are damaged by lack of water during dry periods in the summer and fall of some years.

Most of the acreage is in crops. Sugarcane is the main crop. A small acreage is in pasture and in ponds for crawfish farming.

Suitable crops are sugarcane, soybeans, cotton, rice, and truck crops. Suitable pasture plants are common bermudagrass, dallisgrass, ryegrass, Pensacola bahiagrass, white clover, small grain, alyce clover, and tall fescue.

The soil is fairly easy to keep in good tilth. It can be worked only within a narrow range of moisture content. A drainage system is needed for crops and pasture. Land grading and smoothing improve surface drainage and permit more efficient use of farm equipment. Proper management of crop residue helps maintain the content of organic matter and reduces the soil loss caused by erosion. Irrigation is needed for rice. A complete fertilizer and lime are generally needed for most crops and pasture plants.

Wetness is a limitation for such uses as septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. High shrink-swell is a limitation for use as foundations or as construction material. Capability subclass IIIw; woodland group 2w.

Ca—Calhoun silt loam. This soil is in depressional areas on the terrace uplands in the northwestern and southwestern parts of the parish. It formed in loamy loess deposits. Slope is 0 to 0.5 percent. The west Atchafalaya Basin protection levee protects some areas of this soil from flooding by the Atchafalaya River. This soil is associated with the better drained Coteau and Memphis soils that occur at higher elevations.

Included with this soil in mapping are a few small areas of Coteau, Patoutville, and Frost soils.

Typically the surface layer is medium acid, dark grayish brown silt loam about 4 inches thick. The subsurface layer is 9 inches of strongly acid, grayish brown silt loam mottled with yellowish brown. The subsoil, which extends to a depth of 24 inches, is very strongly acid, gray silty clay loam mottled with yellowish brown. The next layer is 33 inches of very strongly acid, gray silt loam mottled with yellowish brown. Below this layer is slightly acid, light brownish gray silt loam mottled with yellowish brown.

This soil is low in natural fertility. Plant roots penetrate it easily. Water and air move slowly through it. Water runs off the surface at a slow rate and the surface layer is wet for long periods in winter and spring. A seasonal high water table fluctuates between the surface and 2 feet below the surface during the months of December through April. Wetness causes poor aeration and restricts plant root development. Plants are damaged by lack of water during dry periods in the summer and fall of some years.

Most of the acreage is in pasture. A small acreage is in crops.

Suitable crops are sugarcane, rice, cotton, soybeans, sweet potatoes, and truck crops. Suitable pasture plants are common bermudagrass, vetch, southern wild winter pea, and annual lespedeza.

This soil is friable and easy to keep in good tilth. It can be worked over a fairly wide range of moisture content. Traffic pans develop easily but can be broken up by deep plowing or chiseling. A surface drainage system is needed for most cultivated crops and pasture plants. Land grading or smoothing will improve surface drainage and increase the effectiveness of farm equipment. Proper management of crop residue helps maintain organic-matter content and reduces the soil loss caused by erosion. Irrigation is needed for growing rice. A complete fertilizer and lime are needed for most crops and pasture plants.

Wetness is a limitation if this soil is used for septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. Low strength limits its use for foundations or as construction material. Capability subclass IIIw; woodland group 2w.

CB—Convent association, occasionally flooded. These soils are on the natural levees of the Atchafalaya River and its distributaries. They occur in large tracts inside the Atchafalaya Basin Floodway in the northeastern part of the parish. These soils formed in loamy alluvium. They are subject to occasional flooding, scouring, and deposition. Elevation ranges from about 25 to 30 feet above sea level. Slope is generally less than 1 percent but in some places ranges to 2 percent. Some areas are in a ridge and swale pattern. The composition of this mapping unit is more variable than that of most other units in the parish, but it has been controlled well enough for making interpretations for the expected uses of the soils.

The Convent soils make up 65 percent of this association. The remaining 35 percent is mostly soils that are similar to the Convent soils but coarser textured or finer textured throughout, Fausse soils, Sharkey soils, and spoil deposits. The similar soils that are coarser textured throughout are immediately adjacent to major distributary channels, and the similar soils that are finer textured throughout are in broad, nearly level areas at intermediate locations on the natural levees. These similar soils occur mostly in the vicinity of Big Alabama Bayou, Little Alabama Bayou, and Lake Comeaux. The Fausse and Sharkey soils are on the lower edge of the natural levees and in depressions. The spoil is mainly alkaline clay and is along dug channels. The higher parts of the spoil deposits, which are mostly along the main channel in the Atchafalaya Basin Floodway, are not subject to flooding.

Typically the Convent soils have a surface layer of neutral, dark grayish brown silt loam mottled with brown that is about 7 inches thick. The next layer extends to a depth of 52 inches and is moderately alkaline, grayish brown very fine sandy loam and silt loam mottled with brown. Below this layer is moderately alkaline, dark gray silt loam.

The Convent soils are high in fertility. Plant roots penetrate them easily. Water and air move at a moderate rate through them. A seasonal high water table is 1.5 to 4 feet below the surface during the months of December through April. These soils are flooded occasionally for short to long periods with 1 to 2 feet of water. The flooding cycle generally begins late in November and peaks in March and April. The floodwaters vary significantly in duration, depth, and velocity during flood season. The flooding hazard is less severe at high elevations adjacent to major distributary channels. Sufficient water is generally available to plants at all times.

Most of the acreage is in woodland and is used for wildlife habitat. It is part of the Atchafalaya Basin Floodway. A small acreage is oil and gas fields. The commonly occuring native trees are baldcypress, black willow, drummond red maple, eastern cottonwood, green ash, laurel oak, sugarberry, sweetgum, water oak, common persimmon, and American sycamore. A list of native plants observed growing on these soils is in the section "Woodland Management and Productivity."

Soybeans can be grown where flooding is not too severe. Suitable pasture plants are common bermudagrass and Pensacola bahiagrass. Where the soils are used for pasture, however, flooding may restrict grazing time.

The Convent soils are friable and easy to keep in good tilth. They can be worked over a wide range of moisture content. Traffic pans develop easily, but can be broken up by deep plowing or chiseling. A surface drainage system is generally needed for cultivated crops. Land grading or smoothing improves surface drainage and increases effectiveness of farm equipment. Proper management of crop residue is needed if crops are to be grown. Pasture plants respond to nitrogen fertilizer, but lime or other fertilizers are not needed.

Flooding, scouring and deposition are the main limitations for most uses. Capability subclass IVw; woodland group 1w.

CH—Convent-Hydraquents association. This mapping unit is in areas of lake fill in Lake Chicot, Six-Mile Lake and Grand Lake. It occurs in large tracts in an angular braided pattern inside the Atchafalaya Basin Floodway. The soils formed in loamy alluvium. They are subject to flooding, scouring, and deposition. Elevation ranges from about 3 to 14 feet above sea level. Slope is 0 to 2 percent. The acreage increases annually as the lake beds fill. The composition of this mapping unit is more variable than that of most other units in the parish, but has been controlled well enough for interpretations to be made for the expected uses of the soils.

The Convent soils make up about 50 percent of the association, and the Hydraquents soils make up about 40 percent. Spoil deposits, Fausse soils, and soils similar to Convent soils but coarser textured throughout make up the remaining 10 percent of the association. The spoil deposits are along dug channels. The Fausse soils are in low-lying depressional areas. The soils similar to Convent soils but coarser textured occur throughout the area.

Typically the Convent soils have a surface layer of mildly alkaline, dark grayish brown very fine sandy loam about 4 inches thick. The layer below this is moderately alkaline, grayish brown very fine sandy loam mottled with gray and brown to a depth of 60 inches.

The Convent soils are on long convex ridges about 100 to 1,500 feet wide. They receive loamy depositions during annual flooding. As a result of the uniform texture of the deposits, the texture of the surface layer does not significantly change with the addition of new deposits. These soils are high in fertility. Water and air move through them at a moderate rate. A water table is 1.5 to 4 feet below the surface during nonflooded periods. These soils are flooded annually for long periods with up to 12 feet of fast-moving water. The flooding cycle generally begins late in November and peaks in March and April. The floodwaters vary significantly in duration, depth, and velocity. Sufficient water is available to plants at all times.

Typically the Hydraquents are moderately alkaline, gray stratified silt loam, silty clay, clay and very fine sandy loam to a depth of 60 inches. They are mottled with brown.

Hydraquents are in depressions and swales between elongated ridges that are about 100 to 1,000 feet wide. The soil materials have neither dried out nor consolidated since deposition; therefore, they are semifluid throughout. The texture is variable throughout and ranges from very fine sandy loam to clay. Hydraquents are continuously flooded throughout most years by up to 14 feet of water. Excess water is available to plants most of the time.

Most of the acreage is in woodland. It is used for wildlife habitat and as part of the Atchafalaya Basin Floodway. A small acreage is oil and gas fields. Black willow is the only commonly occuring native tree. A complete list of native plants observed growing on these soils is in the section "Woodland Management and Productivity."

These soils are not suited to the production of cultivated crops and pasture plants because they are subject to flooding hazard, scouring, and deposition, and the Hydraquents have a permanent high water table.

Flooding, scouring and deposition are the main limitations for most uses. Capability subclass VIIw; Convent part in woodland group 1w, Hydraquents part in woodland group 4w.

CO—Convent soils, frequently flooded. These soils are on the natural levees of the Atchafalaya River and its distributaries. They occur in large tracts inside the Atchafalaya Basin Floodway. Floodway flow rights are owned by the Federal government. These soils formed in loamy alluvium. They are subject to flooding, scouring, and deposition. Elevation ranges from about 14 to 26 feet above sea level. Slope is generally less than 1 percent but in some places ranges to 2 percent. Some areas are in a ridge and swale pattern. The surface texture of these soils is variable. The overall composition is slowly changing as a result of scouring and deposition. The composition of this mapping unit is more variable than that of

most other units in the parish but has been controlled well enough for making interpretations for the expected uses of these soils.

The Convent soils make up 65 percent of this unit. The remaining 35 percent is soils that are similar to the Convent soils but have a clayey surface layer or are coarser textured throughout or have reddish brown lower layers, Fausse soils, Sharkey soils, and spoil deposits. The similar soils that are coarser textured throughout occur mosty adjacent to distributary channels. The remainder of the soils similar to Convent soils are scattered throughout the area. The Fausse and Sharkey soils occur on the lower edge of the natural levees and in depressions at low elevations. The spoil deposits are along dug channels. These deposits are dominantly alkaline clays. The higher-lying spoil deposits are not subject to flooding.

Typically the Convent soils have a surface layer of neutral, dark grayish brown silt loam about 4 inches thick. The next layer extends to a depth of 24 inches and is moderately alkaline, grayish brown very fine sandy loam mottled with brown and yellowish brown. The next layer extends to a depth of 40 inches and is moderately alkaline, grayish brown silt loam. Below this layer is moderately alkaline, grayish brown very fine sandy loam mottled with yellowish brown.

The Convent soils are high in fertility. Plant roots penetrate the soil easily. Water and air move at a moderate rate through the soils. A seasonally high water table is 1.5 to 4 feet below the surface during the months December through June. These soils are flooded annually for short to long periods by up to 4 feet of fast-moving water. The flooding cycle generally begins late in November and peaks in March and April. The floodwaters vary significantly in duration, depth, and velocity. The flooding hazard is less severe at high elevations adjacent to the major distributary channels. Sufficient water is generally available to plants at all times.

Most of the acreage is in woodland and is used for wildlife habitat. It is part of the Atchafalaya Basin Floodway. A small acreage is oil and gas fields. The commonly occuring native trees are American sycamore, baldcypress, black willow, common persimmon, Drummond red maple, eastern cottonwood, green ash, laurel oak, sugarberry, sweetgum, and water oak. A more complete list of native plants observed growing on these soils is in the section "Woodland Management and Productivity."

These soils are not suited to the economic production of cultivated crops, and the choice of pasture plants is restricted by the flooding hazard, scouring, and deposition. Flooding also restricts grazing time. Common bermudagrass and Pensacola bahiagrass are suitable pasture plants. These pasture plants respond well to nitrogen fertilizer.

Flooding, scouring, and deposition are the main limitations for most uses. Capability subclass Vw; woodland group 1w.

Cu—Coteau silt loam. This soil is on the terrace uplands in the northwestern and southwestern parts of the parish. It formed in loamy loess deposits. Slope is 0 to 1 percent. The west Atchafalaya Basin protection levee protects some areas of this soil from flooding by the Atchafalaya River. This soil is associated with the more alkaline Acy soils that occur at lower elevations.

Included with this soil in mapping are a few small areas of Acy, Calhoun, and Frost soils. Also included are small areas of Coteau soils that have a slope of 1 to 3 percent on the eastern edge of Anse La Butte salt dome.

Typically the surface layer of this soil is medium acid, dark grayish brown silt loam about 7 inches thick. The subsoil, which extends to a depth of 13 inches, is strongly acid, dark brown silty clay loam. The next layer extends to a depth of 32 inches and is strongly acid, brown silty clay loam mottled with shades of brown. Below this layer is slightly acid, brown silt loam mottled with grayish brown.

This soil is moderate in natural fertility. Plant roots penetrate the soil easily. Water and air move moderately slowly through it. Water runs off the surface at a slow to medium rate. The seasonal high water table is 1.5 to 3 feet below the surface during the months of December through April. The surface layer is wet for significant periods in winter and spring. Plants are damaged from lack of water during dry periods in summer and fall of some years.

Most of the acreage is in crops and pasture.

Suitable crops are sugarcane, corn, cotton, soybeans, truck crops, rice, and sweet potatoes. Suitable pasture plants are common bermudagrass, Pensacola bahiagrass, small grain, ryegrass, improved bermudagrass, white clover, alyce clover, vetch, southern wild winter pea, and annual lespedeza.

This soil is friable and easy to keep in good tilth. It can be worked over a fairly wide range of moisture content. Traffic pans form easily, but can be broken up by deep plowing or chiseling. A surface drainage system is generally needed for cultivated crops. Land grading or smoothing will improve surface drainage and increase the efficient use of farm equipment. Proper crop residue management will help maintain organic matter content and reduce soil loss caused by erosion. Irrigation is needed for rice. A complete fertilizer and lime are needed for most crops and pasture plants.

Wetness of the soil is a limitation for such uses as septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. Low strength is a limitation for use as foundations or as construction material. Capability subclass IIw; woodland group 1w.

Cx—Coteau-Frost complex, gently undulating. These soils are on parallel ridges and in swales in crescent pattern on the terrace uplands in the southwestern part of the parish. They formed in loamy loess deposits. The Coteau soils make up about 60 percent of the acreage. They occur on ridges about 800 feet wide and are up to 3 feet higher than the swales. The Frost soils make up about 40 percent of the acreage. They occur in the swales which are about 400 feet wide. Coteau and Frost soils are

so closely intermingled that it would not be feasible to map them separately at the scale used. These soils are associated with the better drained Memphis soils that occur at a higher local elevation. Slope is 0 to 3 percent.

Included with these soils in mapping are small areas of Memphis and Patoutville soils. Also included are small areas of Frost soils at low elevations that are occasionally flooded.

Typically the surface layer of the Coteau soil is strongly acid, dark brown silt loam about 8 inches thick. The subsoil, which extends to a depth of 26 inches, is strongly acid, dark brown silt loam mottled with shades of brown and gray. The next layer to a depth of 70 inches is medium acid, light brownish gray silt loam mottled with shades of brown.

The Coteau soil is moderate in natural fertility. Plant roots penetrate the soil easily. Water and air move moderately slowly through it. Water runs off the surface at a slow to medium rate and the surface layer is wet for significant periods in winter and spring. The seasonal high water table is 1.5 to 3 feet below the surface during the months of December through April. Plants are damaged by lack of water during dry periods in summer and fall of some years.

Typically the surface layer of the Frost soil is strongly acid, dark gray silt loam about 6 inches thick. The subsurface layer extends to a depth of 24 inches and is very strongly acid, gray silt loam. The subsoil, which extends to a depth of 40 inches, is medium acid dark gray silty clay loam mottled with strong brown. The next layer extends to a depth of 56 inches and is slightly acid, gray silty clay loam mottled with strong brown. The underlying material is neutral light gray silt loam mottled with yellowish brown.

The Frost soil is moderate in natural fertility. Plant roots penetrate it fairly easily. Water and air move slowly through it. Water runs off the surface at a slow rate. The seasonal high water table is at a depth of 0 to 1.5 feet during the months of December through April. The surface layer is wet for long periods in winter and spring. Plants are damaged by lack of water during dry periods in the summer and fall of some years.

Most of the acreage is in crops. A small acreage is in pasture. Sugarcane is the principal crop.

Suitable crops are sugarcane, soybeans, truck crops, and sweet potatoes. Suitable pasture plants are common bermudagrass, Pensacola bahiagrass, ryegrass, small grain, white clover, improved bermudagrass, annual lespedeza, and alyce clover.

These soils are friable and fairly easy to keep in good tilth. They can be worked over a fairly wide range of moisture content. Traffic pans develop easily, but can be broken up by deep plowing or chiseling. The short, irregular slopes interfere with tillage operations. Drainage is needed to remove excess water from the swales. Land smoothing or grading will improve surface drainage and permit more efficient use of farm equipment, but in many cases a very large amount of earth must be moved. Proper management of crop residue helps maintain the content of organic matter and reduces soil loss caused by erosion. A complete fertilizer and lime is needed for most crops and pasture plants.

Wetness is a limitation for such uses as septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. Low strength limits the use of the soil for foundations or as construction material. Capability subclass IIIw; Coteau part in woodland group 1w, Frost part in woodland group 2w.

Dd—Dundee silt loam. This soil is on the natural levees of Bayou Teche and Catahoula Coulee in the western part of the parish. It formed in loamy alluvium. Slope is 0 to 1 percent. The west Atchafalaya Basin protection levee protects this soil from flooding by the Atchafalaya River. This soil is associated with the darker colored, more alkaline Loreauville soils and the poorer drained, more clayey Baldwin soils that occur on the lower parts of the natural levees.

Included with this soil in mapping are a few small areas of Baldwin and Loreauville soils. Also included are small areas in the southern part of the parish of soils that are similar to Dundee soils but have an alkaline subsoil. In addition, there are a few small areas of Dundee soils that do not have a seasonal high water table within 4 feet of the surface.

Typically the surface layer of this soil is medium acid, dark grayish brown silt loam about 7 inches thick. The subsoil, which extends to a depth of 19 inches, is strongly acid, dark grayish brown silty clay loam mottled with yellowish brown. The next layer extends to a depth of 42 inches and is medium acid grayish brown silty clay loam mottled with brown. The underlying material is neutral gray silty clay.

This soil is moderately high in natural fertility. Plant roots penetrate the soil easily. Water and air move moderately slowly through it. Water runs off the surface at a slow to medium rate, and the surface layer is wet for significant periods in winter and spring. The seasonal high water table is 1.5 to 2.5 feet below the surface during the months of December through April. Plants withstand droughts fairly well on this soil. Sufficient water is available to them in most years.

Most of the acreage is in crops. Sugarcane is the principal crop. A small acreage is used for pasture and homesites.

The moderately high natural fertility, the loamy texture, and the nearly level slopes make this soil one of the choice soils for cropland in the parish. Suitable crops are sugarcane, soybeans, cotton, corn, and truck crops (fig. 6). Suitable pasture plants are common bermudagrass, Pensacola bahiagrass, ryegrass, improved bermudagrass, small grain, white clover, and alyce clover.

This soil is friable and easy to keep in good tilth. It can be worked over a wide range of moisture content. Traffic pans develop easily, but can be broken up by deep plowing or chiseling. A surface drainage system is generally needed for most cultivated crops. Land grading and

smoothing will improve surface drainage and permit more efficient use of farm equipment. Proper management of crop residue helps maintain organic-matter content and reduce soil loss caused by erosion. A complete fertilizer and lime are generally needed for most crops and pasture plants.

Wetness is a limitation of the soil for use as septic tank absorption fields, sanitary landfills, homesites, and roads and streets. Low strength limits its use for foundations or as contruction material. Capability subclass IIw; woodland group 2w.

De—Dundee-Sharkey complex, gently undulating. These soils are on low, narrow, parallel ridges and in swales in crescent pattern on the natural levee of Bayou Teche in the western part of the parish. They formed in loamy and clayey alluvium. The loamy Dundee soils make up about 50 percent of the acreage. They occur on ridges about 200 feet wide and are up to 3 feet higher than the swales. The clayey Sharkey soils make up about 30 percent of the acreage. They occur in swales which are about 125 feet wide. Dundee and Sharkey soils are so closely intermingled that it would not be feasible to map them separately at the scale used. Slope is 0 to 3 percent. The west Atchafalaya Basin protection levee protects these soils from flooding by the Atchafalaya River.

Included with these soils in mapping are small areas of Baldwin and Iberia soils and a few small areas of a soil that is similar to Sharkey soils but more acid throughout. Also included are small areas of Sharkey soils that are flooded occasionally, small areas of Dundee soils that do not have a seasonal high water table within 4 feet of the surface, and small areas of soils in the southern part of the parish that are similar to Dundee soils but are more alkaline in the subsoil.

Typically the surface layer of the Dundee soil is dark grayish brown, medium acid silt loam about 7 inches thick. The subsoil, which extends to a depth of 19 inches, is medium acid, dark grayish brown silty clay loam mottled with shades of brown. The next layer extends to a depth of 36 inches and is medium acid, grayish brown silty clay loam mottled with yellowish brown. The underlying material is medium acid, grayish brown silty clay mottled with yellowish brown.

The Dundee soil is moderately high in natural fertility. Plant roots penetrate it easily. Water and air move moderately slowly through it. Water runs off the surface at a slow to medium rate. The seasonal high water table is 1.5 to 2.5 feet below the surface during the months of December through April. The surface layer is wet for significant periods in winter and spring. This soil can be worked over a wide range of moisture content. Sufficient water is available to plants in most years.

Typically the surface layer of the Sharkey soil is medium acid, dark gray clay about 12 inches thick. The subsoil, which extends to a depth of 42 inches, is neutral gray clay mottled with yellowish brown. The underlying material is mildly alkaline gray clay mottled with yellowish brown.

The Sharkey soil is high in natural fertility. Plant roots penetrate it with difficulty. Water and air move very slowly through it. Water runs off the surface at a slow rate. The seasonally high water table fluctuates between the surface and 2 feet below the surface during the months of December through April. The soil swells when wet and shrinks and cracks when dry. It can be worked only within a narrow range of moisture content. The surface layer is wet for long periods in winter and spring. Plants are damaged by lack of water during dry periods in summer and fall of some years.

Most of the acreage is in crops and pasture. Sugarcane is the principal crop.

Suitable crops are sugarcane, soybeans, and cotton. Suitable pasture plants are common bermudagrass, Pensacola bahiagrass, white clover, ryegrass, small grain, alyce clover, and dallisgrass.

The soils of this mapping unit are rather difficult to keep in good tilth. Drainage is needed to remove excess water from the swales. Short irregular slopes and variable textures interfere with tillage. Land smoothing or grading will improve surface drainage and permit more efficient use of farm equipment, but in many places a very large amount of earth will have to be moved. Proper management of crop residue helps maintain the organic-matter content and reduce soil loss caused by erosion. A complete fertilizer is needed for most crops and pasture plants. Lime is generally needed for the Dundee soils.

Wetness is a limitation for such uses as septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. Low strength is a limitation if the Dundee soil is used for foundations or as construction material. High shrink-swell is a limitation if the Sharkey soil is used for foundations or as construction material. Capability subclass IIIw; woodland group 2w.

FA—Fausse association. These soils occur in large tracts of swamp throughout the alluvial plain outside the Atchafalaya Basin Floodway. They are subject to flooding. These soils formed in clayey alluvium. Slope is less than 0.25 percent. Elevation ranges from 1 foot below sea level to 10 feet above sea level. Though protected from flooding by the east and west Atchafalaya Basin protection levees, the soils are flooded most of the time by runoff from higher areas. Flooding is less severe in the Spanish Lake and Lake Grand Marie areas because drainage canals have been constructed. The composition of this unit is more variable than that of most other units in the parish, but it has been controlled well enough for making interpretations for the expected uses of the soils.

The Fausse soils make up 70 percent of the association. Sharkey soils, spoil deposits, and soils that are similar to Fausse soils but have semifluid underlying layers, make up most of the rest. The Sharkey soils are in the higher areas adjacent to major bayous and on low ridges inside the swamp. The spoil deposits are from dug channels. The communities of Stephenville and Belle River are on spoil deposits at a high elevation and generally are not subject to flooding. The soils similar to Fausse soils that have

semifluid underlying layers are in old lake areas at the lowest elevation within the swamp.

Typically the surface layer of the Fausse soils is slightly acid, dark grayish brown mucky clay about 4 inches thick. The subsoil extends to a depth of 14 inches and is neutral, gray clay mottled with strong brown. Below that, to a depth of 28 inches, is moderately alkaline, gray clay mottled with strong brown. The underlying material is moderately alkaline greenish gray clay mottled with olive.

The soils of this association are high in natural fertility. Water and air move very slowly through the Fausse soils. A water table ranges from 0.5 foot above the surface to 1.5 feet below the surface throughout the year. These soils are flooded to a maximum depth of about 5 feet for long periods during the winter and spring. They are generally at too low an elevation for gravity drainage. Excess water is available to plants most of the time.

Most of the acreage is in woodland and is used mostly for wildlife habitat. The commonly occuring native trees are baldcypress, black willow, green ash, honeylocust, pumpkin ash, sugarberry, sweetgum, water hickory, waterlocust and water tupelo. A more complete list of native plants observed growing on these soils is in the section "Woodland Management and Productivity."

These soils are not suited to the economic production of cultivated crops and pasture plants because of the flooding hazard and the permanent high water table. Flooding, wetness and a high water table are limitations for most uses. Capability subclasst VIIw; woodland group 3w.

FS—Fausse soils. These soils occur in large tracts of swamp on the alluvial plain inside the Atchafalaya Basin Floodway. They are subject to annual flooding by the Atchafalaya River. These soils formed in clayey alluvium. Slope is less than 0.5 percent. Elevation ranges from 1 to 10 feet above sea level. The composition of this unit is more variable than that of most other units in the parish, but it has been controlled well enough for making interpretations for the expected uses of these soils (fig. 7).

The Fausse soils make up 60 percent of the mapping unit. Convent soils, Sharkey soils, spoil deposits, and soils that are similar to Fausse soils but have a loamy surface layer or semifluid lower layers make up most of the remaining 40 percent. Convent soils are at the highest elevation. Sharkey soils are at an intermediate elevation along major bayous. The spoil deposits are along dug channels. The soils that are similar to Fausse soils but have a loamy surface layer occur around the perimeter of the swamp. The soils that are similar to Fausse soils but have semifluid lower layers occur in old lake areas at the lowest elevation.

Typically the surface layer of the Fausse soils is slightly acid, dark grayish brown mucky clay about 7 inches thick. The subsoil extends to a depth of 16 inches and is neutral, dark gray clay. The next layer extends to a depth of 30 inches and is moderately alkaline, gray clay mottled with olive. The underlying material is moderately alkaline, greenish gray clay mottled with olive.

These soils are high in natural fertility. Water and air move very slowly through them. A water table fluctuates between 0.5 foot above the surface and 1.5 feet below the surface throughout the year. The soils are flooded with up to 14 feet of water for 6 to 10 months of the year. Some areas are continuously flooded throughout most years. Excess water is available to plants most of the time.

The flooding cycle generally begins late in November and peaks in March and April. The drying cycle, when it occurs, is late in summer or early in fall. The texture of the surface layer of soils adjacent to major distributary channels is subject to change as new sediments are deposited by floodwaters.

All of the acreage is in woodland and is used for wildlife habitat and as part of the Atchafalaya Basin Floodway. The Federal government has floodway flow rights. A small acreage is oil and gas fields. The common native trees are baldcypress, black willow, green ash, pumpkin ash, sugarberry, water hickory, and water tupelo. A more complete list of native plants on these soils is in the section "Woodland Management and Productivity."

These soils are not suited to the economic production of cultivated crops and pasture plants because of the flooding hazard and the permanent high water table. They provide the main natural habitat for deepwater crawfish.

Flooding, scouring, deposition, wetness and a high water table are the main limitations for most uses. Capability subclass VIIw; woodland group 3w.

Ft—Frost silt loam, occasionally flooded. This soil is parallel and adjacent to drains on the terrace uplands in the southwestern and northwestern parts of the parish. It formed in loamy loess deposits. It is subject to occasional flooding. Slope is 0 to 1 percent. This soil is associated with the better drained Memphis soils that occur at a higher elevation.

Included with this soil in mapping are a few small areas of soils that are similar to Frost soils but have a black surface layer 12 to 20 inches thick. These soils occur along Coulee LaSalle and along Cyprus Bayou near the parish boundary.

Typically the surface layer of this soil is medium acid, dark gray silt loam about 6 inches thick. The subsurface layer extends to a depth of 24 inches; it is very strongly acid gray silt loam. The subsoil to a depth of 60 inches is a strongly acid, gray silty clay loam mottled with yellowish brown.

This soil is moderate in natural fertility. Plant roots penetrate it easily. Water and air move slowly through it. Water runs off the surface at a slow rate. A seasonal high water table fluctuates between the surface and 1.5 feet below the surface from December through April. The surface layer is wet for long periods in winter and spring. Plants are damaged by lack of water during dry periods in summer and fall of some years.

Most of the acreage is in woodland. A small acreage is in pasture.

The occasional flooding of this soil reduces the number of suitable crop and pasture plants. A suitable crop is soybeans. Suitable pasture plants are common bermudagrass and Pensacola bahiagrass.

The soil is friable and fairly easy to keep in good tilth. It can be worked over a fairly wide range of moisture content. Traffic pans form easily but can be broken up by deep plowing or chiseling. Drainage, a complete fertilizer, and lime are needed for most crop and pasture plants; however, nitrogen is generally not needed for soybeans. Proper management of crop residue helps maintain the content of organic matter and reduce soil loss caused by erosion.

Flooding and wetness are limitations for use of the soil as septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. Low strength is a limitation for use for foundations or as construction material. Capability subclass IVw; woodland group 2w.

Ga—Gallion silt loam. This soil is on the natural levees of Bayou Fusiler and Bayou Vermilion in the western part of the parish. Along Bayou Vermilion, this soil is in small areas mostly on the outside bends of the bayou. This soil formed in loamy alluvium. Slope is 0 to 1 percent. The west Atchafalaya Basin protection levee protects this soil from flooding by the Atchafalaya River. The soil is associated with the less well drained Dundee soils that occur at slightly lower elevations and the less well drained, more clayey Sharkey soils at lower elevations.

Included with this soil in the mapping are a few small areas of Dundee and Perry soils. Also included are small areas of soils that are similar to Gallion soils but have a higher sand content.

Typically the surface layer of this soil is medium acid, brown silt loam about 8 inches thick. The subsoil, which extends to a depth of 27 inches, is slightly acid, silty clay loam. The next lower layer extends to a depth of 40 inches; it is slightly acid, yellowish red silt loam. The underlying material is neutral, yellowish red, stratified silt loam and very fine sandy loam.

This soil is high in fertility. Plant roots penetrate it easily. Water and air move at a moderate rate through it. Water runs off the surface slowly, but the soil is not wet. Typically a seasonal high water table is at a depth of more than 6 feet, but in places it is at a depth of 4 to 6 feet from December through April. Sufficient water is available to plants in most years.

Most of the acreage is in crops. Soybeans are the principal crop. A small acreage is in woodland.

The high fertility, loamy texture, and nearly level slope make this soil one of the choice soils for crops in the parish. Suitable crops are soybeans, sugarcane, cotton, corn, and truck crops. Suitable pasture plants are common bermudagrass, Pensacola bahiagrass, white clover, improved bermudagrass, ryegrass, small grain, and alyce clover.

The soil is friable and easy to keep in good tilth. It can be worked over a wide range of moisture content. Traffic pans form easily but can be broken up by deep plowing or chiseling. Land grading or smoothing will improve surface drainage and permit more efficient use of farm equipment. Proper crop residue management will help maintain the content of organic matter and reduce soil loss caused by erosion. A complete fertilizer is generally needed for most crops and pasture plants. Lime is generally not needed.

This soil is well suited to homesites because of its high elevation. Low strength is a limitation for its use for foundations or as construction material. Capability subclass I; woodland group 2o.

Gp—Gallion-Perry complex, gently undulating. These soils are on narrow ridges and in swales immediately adjacent and parallel to Bayou Teche and Catahoula Coulee in the western part of the parish. They formed in loamy and clayey alluvium. The loamy Gallion soils make up about 55 percent of the area. They occur on ridges about 150 feet wide that are up to 6 feet higher than the swales. The clayey Perry soils make up about 30 percent of the area. They occur in swales that are about 100 feet wide. Gallion and Perry soils are so closely intermingled that it is not feasible to map them separately at the scale used. Slope is 0 to 5 percent. These soils are 5 to 10 feet lower than the adjacent Dundee and Baldwin soils on the natural levees of Bayou Teche and Catahoula Coulee. The west Atchafalaya Basin protection levee protects them from flooding by the Atchafalaya River.

Included with these soils in mapping are small areas of Baldwin and Dundee soils. Also included are a few small areas of soils that are similar to Gallion soils but have a higher clay content in the subsoil; small areas where slope is 5 to 8 percent; and small areas of Perry soils that are frequently flooded.

Typically the surface layer of the Gallion soil is slightly acid, dark brown silt loam about 6 inches thick. The subsoil, which extends to a depth of 27 inches, is slightly acid, reddish brown silty clay loam. The next layer, which extends to a depth of 41 inches, is neutral, reddish brown silty clay loam. The underlying material is moderately alkaline, dark brown stratified silt loam and silty clay loam.

The Gallion soil is high in fertility. Plant roots penetrate it easily. Water and air move through it at a moderate rate. Water runs off the surface slowly. The soil is not wet for significant periods in any season. Typically a seasonal high water table is more than 6 feet below the surface, but in places it is at a depth of 4 to 6 feet from December through April. Sufficient water is available to plants in most years.

Typically the surface layer of the Perry soil is medium acid, dark grayish brown silty clay loam about 5 inches thick. The subsoil, which extends to a depth of 21 inches, is slightly acid, gray clay mottled with reddish brown. The next lower layer is 18 inches of slightly acid reddish brown clay mottled with gray. The underlying material is mildly alkaline reddish brown clay mottled with gray.

The Perry soil is fairly high in natural fertility. Water and air move through it at a very slow rate. Water runs

off the surface slowly. A seasonal high water table fluctuates between the surface and 2 feet below the surface during the months of December through April. Plant roots penetrate the soil with difficulty. The soil can be worked only within a narrow range of moisture content. It swells when wet and shrinks and cracks when dry. The surface layer is wet for long periods in the winter and spring. Plants are damaged by lack of water during dry periods in the summer and fall of some years.

Most of the acreage is in homesites and other nonfarm uses. A small acreage is in crops and pasture.

Suitable crops are sugarcane, soybeans, cotton, and truck crops. Suitable pasture plants are common bermudagrass, ryegrass, Pensacola bahiagrass, small grain, white clover, and alyce clover.

These soils are rather difficult to keep in good tilth. Drainage is needed to remove excess water from the swales. Short irregular slopes and variable textures hinder tillage operations. Land smoothing or grading will improve surface drainage and permit more efficient use of farm equipment, but in many places a very large amount of earth needs to be moved. Proper crop residue management will help maintain the content of organic matter and reduces soil loss caused by erosion. A complete fertilizer is needed for most crops and pasture plants. Lime is generally not needed.

The Gallion soil is desirable for homesites because it is at a high elevation. Wetness is a limitation of the Perry soil for such uses as septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. Low strength is a limitation of the Gallion soil for foundations or use as construction material. A high shrink-swell potential limits the use of the Perry soil for foundations or as construction material. Capability subclass IIIw; Gallion part in woodland group 2o, Perry part in woodland group 2w.

Ib—Iberia silty clay. This soil is on the natural levee of Bayou Teche in the western part of the parish. It formed in clayey alluvium. The slope is less than 0.5 percent. The west Atchafalaya Basin protection levee protects this soil from flooding by the Atchafalaya River. This soil is associated with the better drained, less clayey Loreauville soils that occur on the higher part of the natural levee.

Included with this soil in mapping are small areas of Baldwin and Sharkey soils and small areas of Iberia soils that are occasionally flooded. Also included are areas of soils west of Bayou Teche that are similar to Iberia soils but have a slightly thinner surface layer.

Typically the surface layer is neutral, very dark gray silty clay about 14 inches thick. The subsoil, which extends to a depth of 37 inches, is moderately alkaline, gray clay mottled with light olive brown. The underlying material is moderately alkaline, light olive gray clay mottled with yellowish brown.

This soil is high in fertility. Plant roots penetrate it with difficulty. Water and air move through it very slowly. Water runs off the surface at a very slow rate and the surface layer is wet for long periods in winter and spring. A seasonal high water table fluctuates between the surface and 2 feet below the surface during the months of December through April. The soil swells when wet and shrinks and cracks when dry. Plants are damaged by lack of water during dry periods in summer and fall of some years.

Most of the acreage is in crops. Rice and sugarcane are the principal crops. A small acreage is in pasture and woodland. Also, some fields are used for crawfish farming rotated with rice production.

Suitable crops are sugarcane, rice, soybeans, and okra. Suitable pasture plants are common bermudagrass, Pensacola bahiagrass, dallisgrass, ryegrass, tall fescue, small grain, alyce clover, and white clover.

This soil is difficult to keep in good tilth. It can be worked within only a narrow range of moisture content. A drainage system is needed for crops and pasture. Land grading and smoothing will improve surface drainage and permit more efficient use of farm equipment. Proper management of crop residue helps maintain the content of organic matter and reduce the soil loss caused by erosion. Irrigation is needed for rice. A complete fertilizer is generally needed for most crops. Lime is generally not needed.

Wetness is a limitation of this soil for septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. A high shrink-swell potential limits its use for foundations or as construction material. Capability subclass IIIw; woodland group 3w.

Lo—Loreauville silt loam. This soil is on the natural levees of Bayou Teche and Catahoula Coulee in the western part of the parish. It formed in loamy alluvium. Slope is 0 to 1 percent. The west Atchafalaya Basin protection levee protects this soil from flooding by the Atchafalaya River. The soil is associated with the lighter colored, more acid Dundee soils that occur on the higher parts of the natural levees and the less well drained, more clayey Baldwin and Iberia soils at a lower elevation.

Included with this soil in mapping are small areas of Dundee, Baldwin, and Iberia soils. Also included are a few small areas of a soil that is similar to Loreauville soils but has a thicker surface layer and similar soils near Catahoula that have a reddish brown subsoil.

Typically the surface layer is neutral, very dark grayish brown silt loam about 8 inches thick. The subsoil, which extends to a depth of 24 inches, is mildly alkaline, grayish brown silty clay loam mottled with olive brown. The next layer extends to a depth of 48 inches; it is moderately alkaline olive gray loam mottled with olive and olive brown. The underlying material is moderately alkaline olive gray silt loam mottled with light olive brown.

This soil is high in natural fertility. Plant roots penetrate the soil easily. Water and air move moderately slowly in the soil. Water runs off the surface at a slow rate, and the surface layer is wet for significant periods in winter and spring. A seasonal high water table fluctuates between 1 and 2.5 feet below the surface during the

months of December through April. Sufficient water is available to plants in most years.

Most of the acreage is in crops. A small acreage is in pasture. Sugarcane is the main crop.

The high fertility, loamy texture, and nearly level slope make this the choice soil for crops in the parish. Suitable crops are sugarcane, cotton, corn, soybeans, rice, and truck crops. Suitable pasture plants are common bermudagrass, alyce clover, small grain, Pensacola bahiagrass, ryegrass, dallisgrass, white clover, and improved bermudagrass.

This soil is friable and easy to keep in good tilth. It can be worked over a somewhat wide range of moisture content. Traffic pans form easily but can be broken up by deep plowing or chiseling. A surface drainage system is generally needed for most cultivated crops. Land grading or smoothing will improve surface drainage and permit more efficient use of farm equipment. Proper crop residue management will help maintain the content of organic matter and will reduce the soil loss caused by erosion. A complete fertilizer is generally needed for most crops and pasture plants. Lime is not needed.

Wetness is a limitation for such uses as septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. Low strength is a limitation for use as foundations or as construction material. Capability subclass IIw; woodland group 1w.

Me—Memphis silt loam, 1 to 3 percent slopes. This soil is on broad, convex stream divides on the terrace uplands in the northwestern and southwestern parts of the parish. It formed in loamy loess deposits. This soil is associated with the less well drained Coteau soils at a slightly lower elevation and the darker, less well drained Frost soils along the drainageways.

Included with this soil in mapping are a few small areas of Coteau and Calhoun soils. Also included are a few small areas of Memphis soils that have slopes of 5 to 8 percent.

Typically the surface layer is medium acid, dark brown silt loam about 6 inches thick. The subsoil, which extends to a depth of 40 inches, is strongly acid, dark brown silty clay loam. The underlying material is medium acid, dark yellowish brown silt loam.

This soil is moderate in fertility. Plant roots penetrate it easily. Water and air move through it at a moderate rate. Water runs off the surface at a medium rate, and this soil is not wet during any season. A seasonal high water table is more than 6 feet below the surface. The soil is desirable for homesites because it is at a high local elevation. Sufficient water is available to plants in most years.

Most of the acreage is in crops and pasture. Sugarcane is the main crop.

Suitable crops are sugarcane, corn, cotton, soybeans, sweet potatoes, and truck crops. Suitable pasture plants are common bermudagrass, Pensacola bahiagrass, ryegrass, improved bermudagrass, small grain, white clover, alyce clover, vetch, southern wild winter pea, and annual lespedeza.

This soil is friable and easy to keep in good tilth. It can be worked over a wide range of moisture content. Drought is not a serious hazard. Erosion is a problem where the soil is without vegetative cover. Traffic pans form easily, but can be broken up by deep plowing and chiseling. Proper crop residue management will help maintain the content of organic matter and reduce the soil loss caused by erosion. Stripcropping or contour farming is needed on cropland to help reduce erosion. A complete fertilizer and lime are needed for most crops and pasture plants.

Low strength limits the use of the soil for foundations or as construction material. Capability subclass IIe; woodland group 1o.

Mh—Memphis silt loam, 5 to 8 percent slopes. This is a moderately sloping soil on the escarpment between the terrace uplands and the alluvial plain and along major entrenched drainageways on the terrace uplands in the southwestern part of the parish. This soil formed in loamy loess deposits. It is associated with the darker, less well drained Frost soils at a lower elevation adjacent to the drainageways.

Included with this soil in mapping are a few small areas of Coteau soils. Also included along the base of the escarpment between the terrace uplands and the alluvial plain, are small areas of soils that are similar to Memphis soils but have a very dark colored surface layer, small areas of Memphis soils that have slopes of 8 to 12 percent, and small areas in which most of the original topsoil was removed by erosion.

Typically the surface layer is very strongly acid, dark yellowish brown silt loam about 4 inches thick. The subsoil extends to a depth of 48 inches. The upper part is 13 inches thick and is very strongly acid, dark brown silty clay loam. The lower part is strongly acid, dark yellowish brown silt loam. The underlying material is medium acid dark yellowish brown silt loam.

This soil is moderate in fertility. Plant roots penetrate it easily. Water and air move through it at a moderate rate. Water runs off the surface at a rapid rate, and the soil is not wet during any season. A seasonal high water table is more than 6 feet below the surface. The soil is well suited to homesites because it is at a high elevation. It erodes easily if not protected by vegetation. Sufficient water is available to plants in most years.

Most of the acreage is in crops and pasture. Sugarcane is the main crop.

Suitable crops are sugarcane, soybeans, and truck crops. Suitable pasture plants are common bermudagrass, Pensacola bahiagrass, improved bermudagrass, ryegrass, small grains, white clover, alyce clover, and annual lespedeza.

This soil is friable and easy to keep in good tilth. It can be worked over a wide range of moisture content. Plants are sometimes damaged by lack of water during summer and fall. Traffic pans form easily but can be broken up by deep plowing or chiseling. The slopes hinder the use of some farm equipment. Proper crop residue management

will help maintain the content of organic matter and reduce the soil loss caused by erosion. Contour farming, terraces, stripcropping, or grassed waterways are needed to help reduce erosion in cropped areas. Fertilizer and lime are needed for most crops and pasture plants.

Low strength is a limitation for use as foundations or as construction material. Capability subclass IIIe; woodland group 1o.

Mp—Memphis-Frost complex, gently undulating. These soils are on parallel ridges and in swales in crescent pattern on the terrace uplands in the southwestern part of the parish (fig. 8). They formed in loamy loess deposits. The Memphis soils make up about 60 percent of the acreage. They occur on ridges about 800 feet wide that are up to 3 feet higher than the swales. The Frost soils make up about 40 percent of the acreage. They occur in the swales which are about 500 feet wide. Memphis and Frost soils are so closely intermingled that it was not feasible to map them separately at the scale used. Slope is 0 to 3 percent. These soils are associated with the less well drained Coteau and Patoutville soils that occur at lower elevations.

Included with these soils in mapping are a few small areas of Coteau, Calhoun, and Patoutville soils. Also included are small areas of soils that are similar to Memphis soils but have a very dark colored surface layer and small areas of Frost soils that are occasionally flooded.

Typically the surface layer of the Memphis soil is strongly acid, dark brown silt loam about 7 inches thick. The subsoil, which extends to a depth of 40 inches, is very strongly acid, dark brown silty clay loam. Below this layer is medium acid dark yellowish brown silty clay loam.

The Memphis soil is moderate in natural fertility. Plant roots penetrate it easily. Water and air move through it at a moderate rate. Water runs off the surface at a medium rate, and the soil is not wet during any season. A seasonal high water table is more than 6 feet below the surface. Sufficient water is available to plants in most years.

Typically the surface layer of the Frost soil is very strongly acid, dark gray silt loam about 6 inches thick. The subsurface layer is 14 inches of very strongly acid, gray silt loam. The subsoil, which extends to a depth of 30 inches, is very strongly acid, gray silty clay loam mottled with yellowish brown. The next layer extends to a depth of 46 inches and is strongly acid, light brownish gray silty clay loam mottled with yellowish brown. The underlying material is slightly acid, light brownish gray silt loam mottled with dark yellowish brown.

The Frost soil is moderate in natural fertility. Plant roots penetrate it fairly easily. Water and air move slowly through it. Water runs off the surface at a slow rate, and the surface layer is wet for long periods in winter and spring. A seasonal high water table fluctuates between the surface and 1.5 feet below the surface during the months of December through April. Plants are damaged by lack of water during dry periods in summer and fall of some years.

Most of the acreage is in crops. Sugarcane is the principal crop. A small acreage is in pasture.

Suitable crops are sugarcane, soybeans, and truck crops. Suitable pasture plants are common bermudagrass, Pensacola bahiagrass, ryegrass, improved bermudagrass, white clover, small grain, annual lespedeza, and alyce clover.

These soils are friable and fairly easy to keep in good tilth. They can be worked over a fairly wide range of moisture content. Traffic pans develop easily, but can be broken up by deep plowing or chiseling. Irregular slopes hinder tillage operations. Drainage is needed to remove excess water from the swales. Land smoothing or grading will improve surface drainage and permit more efficient use of farm equipment, but in many places a very large amount of earth must be moved. Proper management of crop residue helps maintain the level of organic matter and reduces the soil loss caused by erosion. A complete fertilizer and lime are needed for most crops and pasture plants.

Wetness is a limitation of the Frost soil for such uses as septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. Low strength is a limitation for use as foundations or as construction material. Capability subclass IIIw; Memphis part in woodland group 1o, Frost part in woodland group 2w.

Pt—Patoutville silt loam. This soil is on broad, slightly convex stream divides on the terrace uplands in the southwestern part of the parish. It formed in loamy loess deposits. Slope is 0 to 1 percent. This soil is associated with the better drained Memphis soils that occur at a higher elevation and the less well drained Frost soils at a lower elevation.

Included with this soil in mapping are a few small areas of Calhoun, Frost, and Coteau soils. Also included are small areas of soils near the Iberia parish boundary that are similar to the Patoutville soils but have a darker colored surface layer.

Typically the surface layer is strongly acid, dark grayish brown silt loam about 7 inches thick. The subsoil, which extends to a depth of 18 inches, is neutral dark grayish brown silty clay loam mottled with olive yellow. The next lower layer is 18 inches of neutral grayish brown silty clay loam mottled with yellowish brown. Below this layer is neutral gray silt loam mottled with yellowish brown.

This soil is moderate in natural fertility. Plant roots penetrate it easily. Water and air move slowly through it. Water runs off the surface at a slow rate, and the surface layer is wet for significant periods in winter and spring. A seasonal high water table is 2 to 3 feet below the surface during the months of December through April. Plants are damaged by lack of water during dry periods in the summer and fall of some years.

Most of the acreage is in crops. Sugarcane is the principal crop. A small acreage is in pasture.

Suitable crops are sugarcane, cotton, soybeans, rice, sweet potatoes, and truck crops. Suitable pasture plants

are common bermudagrass, Pensacola bahiagrass, ryegrass, improved bermudagrass, alyce clover, vetch, Southern wild winter pea, small grain, white clover, and annual lespedeza.

This soil is friable and easy to keep in good tilth. It can be worked over a fairly wide range of moisture content. Traffic pans form easily but can be broken up by deep plowing or chiseling. A surface drainage system is generally needed for most cultivated crops. Land grading and smoothing will improve surface drainage and permit more efficient use of farm equipment. Irrigation is needed for rice. Proper crop residue management will help maintain the level of organic matter and reduce the soil loss caused by erosion. A complete fertilizer and lime are needed for most crops and pasture plants.

Wetness is a limitation of the soil for septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. Low strength is a limitation for use as foundations or as construction material. Capability subclass IIw; woodland group 1w.

Sh—Sharkey clay. This soil is on broad level areas adjacent to the Bayou Teche and Catahoula Coulee natural levees. It formed in clayey alluvium. Slope is less than 0.5 percent. The west Atchafalaya Basin protection levee protects this soil from flooding by the Atchafalaya River. The soil is associated with the less clayey Baldwin soils that occur on the natural levees at a higher elevation.

Included with this soil in mapping are small areas of Baldwin and Iberia soils. Also included are small areas of soils that are similar to Sharkey soils but more acid throughout, and small areas of soils along Bayou Fusilier and Bayou Vermilion that are similiar to Sharkey soils but reddish brown in color.

Typically the surface layer is slightly acid, dark gray clay about 5 inches thick. The subsoil, which extends to a depth of 15 inches, is slightly acid dark gray clay mottled with yellowish brown. The next layer extends to a depth of 25 inches and is moderately alkaline, dark gray clay mottled with shades of brown. The next layer is 27 inches of moderately alkaline, gray clay mottled with light olive brown. The underlying material is moderately alkaline gray silty clay loam mottled with yellowish brown.

This soil is high in natural fertility. Plant roots penetrate it with difficulty. Water and air move through it very slowly. Water runs off the surface at a slow rate, and the surface layer is wet for long periods in winter and spring. A seasonal high water table fluctuates between the surface and 2 feet below the surface during the months of December through April. The soil swells when wet and shrinks and cracks when dry. Plants are damaged by lack of water during dry periods in summer and fall of some years.

Most of the acreage is in crops and pasture. Soybeans are the principal crop. A small acreage is in woodland.

Suitable crops are sugarcane, soybeans, and rice. Suitable pasture plants are common bermudagrass, Pensacola bahiagrass, dallisgrass, ryegrass, tall fescue, small grain, alyce clover, and white clover.

This soil is difficult to keep in good tilth. It can be worked only within a narrow range of moisture content. A drainage system is needed for crops and pasture. Land grading or smoothing will improve surface drainage and permit more efficient use of farm equipment. Proper management of crop residue helps maintain the level of organic matter and reduce the soil loss caused by erosion. Irrigation is needed for rice. Most crops other than legumes respond well to nitrogen fertilizer. Lime or other fertilizers generally are not needed.

Wetness is a limitation of the soil for septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. A high shrink-swell potential is a limitation for use as foundations or as construction material. Capability subclass IIIw; woodland group 2w.

Sk—Sharkey clay, frequently flooded. This soil is on broad level areas adjacent to the Bayou Teche and Catahoula Coulee natural levees, and is outside the Atchafalaya Basin Floodway. It formed in clayey alluvium. Elevation is generally less than 10 feet above sea level. Slope is less than 0.5 percent. Although the west Atchafalaya Basin levee protects this soil from flooding by the Atchafalaya River, it is subject to frequent flooding by runoff from higher areas. This soil is associated with higher lying Sharkey soils that generally do not flood and with the more poorly drained Fausse soils at a lower elevation.

Included with this soil in mapping are small areas of Fausse soils. Also included are small areas of Sharkey soils that seldom flood, and spoil deposits from dug channels that cross the area.

Typically the surface layer is slightly acid, dark gray clay about 4 inches thick. The subsoil, which extends to a depth of 17 inches, is neutral dark gray clay mottled with yellowish brown. The next layer extends to a depth of 48 inches; it is mildly alkaline, gray clay mottled with yellowish brown. The underlying material is moderately alkaline gray clay mottled with yellowish brown.

This soil is high in natural fertility. Plant roots penetrate it with difficulty. Water and air move through it very slowly. Water runs off the surface at a slow rate, and the soil is flooded annually with 1 to 3 feet of water during one or more short or long periods in winter and spring. A seasonal high water table fluctuates between the surface and 2 feet below the surface during the months of December through April. The soil swells when wet and shrinks and cracks when dry. Sufficient water is available to plants in most years.

Most of the acreage is in woodland. Some areas have been developed for crawfish farming. The commonly occuring native trees are baldcypress, black willow, common persimmon, Drummond red maple, green ash, honeylocust, pumpkin ash, sugarberry, sweetgum, water hickory, waterlocust, and water oak. A list of native plants observed growing on this soil is in the section "Woodland Management and Productivity."

This soil is not suited to the production of most cultivated crops. Common bermudagrass and Pensacola

bahiagrass are suitable pasture plants. The hazard of flooding restricts grazing time and limits the choice of suitable pasture plants.

Flooding and wetness are limitations for most uses. A high shrink-swell potential is a limitation for use for foundations or as construction material. Capability subclass Vw; woodland group 3w.

Planning the Use and Management of the Soils

The soil survey is a detailed analysis and evaluation of the most basic resource of the survey area—the soil. It is useful in adjusting land use, including urbanization, to the limitations and potentials of natural resources and to the environment. Also, it can help avoid soil-related failures in uses of the land.

While a soil survey is in progress, soil scientists, conservationists, engineers, and others keep extensive notes about the nature of the soils and about unique aspects of behavior of the soils in fields and at construction sites. These notes include data on erosion, drought damage to specific crops, yield estimates, flooding, the functioning of septic systems, and other factors affecting productivity, potential, and limitations under various uses and management. In this way, field experience and measured data on soil properties and performance are used as a basis for predicting soil behavior.

Information in this section is useful in planning use and management of soils for crops and pasture, range, woodland, and many nonfarm uses, including building sites, highways and other transportation systems, sanitary facilities, parks and other recreation facilities, and wildlife habitat. From the data presented, the potential of each soil for specified land uses can be determined, soil limitations to these land uses can be identified, and costly failures in houses and other structures, caused by unfavorable soil properties, can be avoided. A site where soil properties are favorable can be selected, or practices that will overcome the soil limitations can be planned.

Planners and others using the soil survey can evaluate the impact of specific land uses on the overall productivity of the survey area or other broad planning area and on the environment. Productivity and the environment are closely related to the nature of the soil. Plans should maintain or create a land use pattern in harmony with the natural soil.

Contractors can find information that is useful in locating sources of roadfill and topsoil. Other information indicates wetness that causes difficulty in excavation.

Health officials, highway officials, engineers, and many other specialists also can find useful information in this soil survey. The safe disposal of wastes, for example, is closely related to properties of the soil. Pavements, sidewalks, campsites, playgrounds, lawns, and trees and shrubs are influenced by the nature of the soil.

Crops and Pasture

General principles of soil management for crops and pasture are discussed in the following paragraphs. Specific recommendations cannot be given because management practices change as new information becomes available. Assistance in detailed planning can be obtained from the local representative of the Soil Conservation Service or from representatives of the Extension Service or the Louisiana Agricultural Experiment Station.

Fertilizing and liming. The soils of St. Martin Parish range from very strongly acid through moderately alkaline in the surface layer. Most soils that are used for crops are low in content of organic matter and in available nitrogen. Convent and Sharkey soils generally need only nitrogen fertilizers for nonleguminous crops. The Acy, Iberia, and Loreauville soils generally do not need lime, but they need phosphorus, potassium, and nitrogen for nonleguminous crops. The rest of the soils in the parish generally need a complete fertilizer for crops and pasture plants. Lime is also generally needed for pasture plants. The amount of fertilizer needed depends on the kind of crop to be grown, on past cropping history, on the level of yield desired, and on the kind of soil. It should be determined on the basis of soil test results. Information and instructions on collecting and testing soil samples can be obtained from local agricultural agencies (*3*).

Maintaining organic-matter content. Organic matter is an important source of nitrogen, and it also helps to increase the rate of water intake, reduce surface crusting, and improve tilth. Most soils of the parish that are used for crops are low in organic-matter content. The level of organic matter can be maintained by growing crops that produce an extensive root system and an abundance of foliage, by leaving plant residue on the surface, by growing perennial grasses and legumes in rotation with other crops, and by adding manure.

Tillage. Soils should be tilled only enough to prepare a seedbed and to control weeds. Excessive tillage destroys the structure of the soil. Fine-textured soils form clods when plowed at a certain moisture content. A compact layer or traffic pan forms in some soils under cultivation, but deep plowing, or chiseling, helps to break up this pan. On silty soils of the terrace uplands, subsoiling has not resulted in an increased yield of sugarcane (*12*). The soils can be protected from beating rains by leaving crop residue on the surface and using tillage implements to stir the surface of the soil. This residue helps to reduce surface crusting, slow runoff, increase infiltration, and control erosion.

Drainage and flood control. Most of the soils in the parish need surface drainage to make them more suitable for crops. The soils at higher elevations on the natural levees are drained by a gravity drainage system consisting of a series of mains, laterals, and split ditches. In other high areas of the parish the gravity drainage system consists of row drains, row arrangement, and field drains. The success of these systems depends on the

availability of outlets. Another method used to improve drainage is land grading, or precision smoothing to a uniform grade. Land grading improves surface drainage, eliminates cross ditches, makes longer rows possible, and makes possible more efficient use of farm equipment. The east and west Atchafalaya Basin protection levees protect the main part of the parish from flooding by the Atchafalaya River; however, a significant acreage at low elevation is flooded by runoff from higher areas. Levees and pumps are necessary to drain most of the flooded areas at low elevation.

Control of erosion. Many of the soils in the parish are subject to sheet erosion, and some soils are subject to gully erosion if they are clean tilled. Control of runoff is needed to prevent loss of soil material. Terraces, stripcropping, cross-slope farming, vegetated outlets, and overfall structures generally are used to reduce the soil loss. Terracing and stripcropping, however, do not fit into a sugarcane rotation. Keeping crop residue on the soil surface is an effective method of reducing sheet erosion. Pipe drops are effective in reducing gully erosion.

Cropping system. Three crops of sugarcane are generally obtained from each planting. After the third crop, the field is planted to soybeans for green manure or is fallow plowed for weed control. A cover crop is seldom used in rotation with sugarcane. The level of organic matter in the soil can be maintained even when sugarcane plant residues are the only organic matter incorporated into the soil. Turning under a good soybeans crop maintains the organic matter at about the same level. In addition, it supplies about 40 pounds of nitrogen per acre and aids in the control of annual grasses and broad-leaved weeds (*12*).

Predicted Yields

Table 4 lists predicted yields of the principal crops grown in the parish. The predictions are based on estimates made by farmers, soil scientists, and others who have knowledge of yields in the parish and on information taken from research data. The predicted yields are average yields per acre that can be expected by good commercial farmers at the level of management which tends to produce the highest economic returns. Crops other than those shown in the table are grown in the parish, but their predicted yields are not included because their acreage is small or reliable data on yields are not available.

The predicted yields shown in table 4 can be expected if the following management principles are observed—

Rainfall is effectively used and conserved.

Surface drainage systems are installed.

Crop residue is managed to maintain soil tilth.

Minimum but timely tillage is used.

Insect, disease, and weed control measures are consistently used.

Fertilizer is applied according to soil tests and crop needs.

Adapted crop varieties are used at recommended seeding rates.

Capability Classes and Subclasses

Capability classes and subclasses show, in a general way, the suitability of soils for most kinds of field crops. The soils are grouped according to their limitations when they are used for field crops, the risk of damage when they are used, and the way they respond to treatment. The grouping does not take into account major and generally expensive landforming that would change slope, depth, or other characteristics of the soils; does not take into consideration possible but unlikely major reclamation projects; and does not apply to rice, horticultural crops, or other crops that require special management. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for range, for forest trees, or for engineering purposes.

In the capability system, all kinds of soils are grouped at three levels: capability class, subclass, and unit. These levels are defined in the following paragraphs.

CAPABILITY CLASSES, the broadest groups, are designated by Roman numerals I through VIII. The numerals indicate progressively greater limitations and narrower choices for practical use; they are defined as follows:

Class I soils have few limitations that restrict their use.

Class II soils have moderate limitations that reduce the choice of plants or require moderate conservation practices.

Class III soils have severe limitations that reduce the choice of plants, require special conservation practices, or both.

Class IV soils have very severe limitations that reduce the choice of plants, require very careful management, or both.

Class V soils are not likely to erode but have other limitations, impractical to remove, that limit their use.

Class VI soils have severe limitations that make them generally unsuitable for cultivation.

Class VII soils have very severe limitations that make them unsuitable for cultivation.

Class VIII soils and landforms have limitations that nearly preclude their use for commercial plants.

CAPABILITY SUBCLASSES are soil groups within one class; they are designated by adding a small letter, *e*, *w*, *s*, or *c*, to the class numeral, for example, IIe. The letter *e* shows that the main limitation is risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c*, used in only some parts of the United States, shows that the chief limitation is climate that is too cold or too dry.

In class I there are no subclasses because the soils of this class have few limitations. Class V contains only the subclasses indicated by *w*, *s*, or *c* because the soils in class V are subject to little or no erosion, though they have other limitations that restrict their use to pasture, range, woodland, wildlife habitat, or recreation.

The capability subclass is identified in the description of each soil mapping unit in the section "Soil Maps for Detailed Planning." Capability units are soil groups within the subclasses. The soils in one capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Thus, the capability unit is a convenient grouping for making many statements about management of soils. Capability units are generally designated by adding an Arabic numeral to the subclass symbol, for example, IIe-1 or IIIw-3.

Woodland Management and Productivity

H. FORD FALLIN, woodland conservationist, Soil Conservation Service, assisted in the preparation of this section.

Southern lowland hardwoods cover approximately 348,000 acres, or 72 percent of the parish. Almost all of the woodland is on the alluvial plain. About 17 percent is located outside the Atchafalaya Floodway and the remainder is inside the floodway. Some trees also grow along the natural drainageways and in some small areas on the terrace uplands. (Table 11 lists the native plants observed growing on selected soils in wetlands.)

There are two sawmills in the parish. Their main supply of logs is from trees cut during land clearing operations.

The amount of wood products produced is far below the potential for the parish. The woodland areas in the parish are also valuable for wildlife, recreation, natural beauty, and the conservation of soil and water.

Table 5 contains information useful to woodland owners or forest managers planning use of soils for wood crops. Mapping unit symbols for soils suitable for wood crops are listed alphabetically by soil name, and the woodland suitability group symbol for each soil is given. All soils in the same suitability group require the same general kinds of woodland management and have about the same potential productivity.

The first part of the woodland suitability symbol, a number, indicates the potential productivity of the soils for important trees. The number 1 indicates very high productivity; 2, high; 3, moderately high; 4, moderate; and 5, low. The second part of the symbol, a letter, indicates the major kind of soil limitation. The letter *w* indicates excessive water in or on the soil. The letter *o* indicates no significant limitations or restrictions.

In table 5 the soils are also rated for a number of factors to be considered in management. The ratings of slight, moderate, and severe are used to indicate the degree of major soil limitations.

Ratings of the hazard of erosion indicate the risk of loss of soil in well-managed woodland. The risk is *slight* if the expected soil loss is small; *moderate* if some measures are needed to control erosion during logging and road construction; and *severe* if intensive management or special equipment and methods are needed to prevent excessive loss of soil.

Ratings of equipment limitation reflect the characteristics and conditions of the soil that restrict use of the equipment generally needed in woodland management or harvesting. A rating of *slight* indicates that use of equipment is not limited to a particular kind of equipment or time of year; *moderate* indicates a short seasonal limitation or a need for some modification in management or equipment; *severe* indicates a seasonal limitation, a need for special equipment or management, or a hazard in the use of equipment.

Seedling mortality ratings indicate the degree that the soil affects expected mortality of planted tree seedlings when plant competition is not a limiting factor. Seedlings from good planting stock that are properly planted during a period of sufficient rainfall are rated. A rating of *slight* indicates that the expected mortality of the planted seedlings is less than 25 percent; *moderate*, 25 to 50 percent; and *severe*, more than 50 percent.

The potential productivity of merchantable trees on a soil is expressed as a site index. This index is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. For the merchantable hardwoods and softwoods in the parish, the site index is the height reached in 50 years, except for cottonwood, for which the index is height reached in 30 years.

Trees to plant are those that are suitable for commercial wood production and that are suited to the soils.

Engineering

NATHAN J. SCHILLER, JR., engineer, Soil Conservation Service, assisted in preparing this section.

This section provides information about the use of soils for building sites, sanitary facilities, construction materials, and water management. Among those who can benefit from this section are engineers, landowners, community planners, town and city managers, land developers, builders, contractors, and farmers and ranchers.

The ratings in the engineering tables are based on test data and estimated data in the "Soil Properties" section. The ratings were determined jointly by soil scientists and engineers of the Soil Conservation Service using known relationships between the soil properties and the behavior of soils in various engineering uses.

Among the soil properties and site conditions identified by the soil survey and used in determining the ratings in this section are grain-size distribution, liquid limit, plasticity index, soil reaction, soil wetness, depth to a seasonal water table, slope, likelihood of flooding, natural

soil structure or aggregation, in-place soil density, and geologic origin of the soil material. Where pertinent, data about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kind of absorbed cations were also considered.

On the basis of information assembled about soil properties, ranges of values can be estimated for erodibility, permeability, corrosivity, shrink-swell potential, available water capacity, shear strength, compressibility, slope stability, and other factors of expected soil behavior in engineering uses. As appropriate, these values can be applied to each major horizon of each soil or to the entire profile.

These factors of soil behavior affect construction and maintenance of roads, airport runways, pipelines, foundations for small buildings, ponds and small dams, drainage systems, sewage and refuse disposal systems, and other engineering works. The ranges of values can be used to—(1) select potential residential, commercial, industrial, and recreational areas; (2) make preliminary estimates pertinent to construction in a particular area; (3) evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; (4) evaluate alternative sites for location of sanitary landfills, onsite sewage disposal systems, and other waste disposal facilities; (5) plan detailed onsite investigations of soils and geology; (6) find sources of clay and topsoil; (7) plan farm drainage systems, irrigation systems, ponds, terraces, and other structures for soil and water conservation; (8) relate performance of structures already built to the properties of the kinds of soil on which they are built so that performance of similar structures on the same or a similar soil in other locations can be predicted; and (9) predict the trafficability of soils for cross-country movement of vehicles and construction equipment.

Data presented in this section are useful for land-use planning and for choosing alternative practices or general designs that will overcome unfavorable soil properties and minimize soil-related failures. Limitations to the use of these data, however, should be well understood. First, the data are generally not presented for soil material below a depth of 5 or 6 feet. Also, because of the scale of the detailed map in this soil survey, small areas of soils that differ from the dominant soil may be included in mapping. Thus, these data do not eliminate the need for onsite investigations and testing.

The information is presented mainly in tables. Table 6 shows, for each kind of soil, the degree and kind of limitations for building site development; table 7, for sanitary facilities; and table 9, for water management. Table 8 shows the suitability of each kind of soil as a source of construction materials.

The information in the tables, along with the soil map, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations and to construct interpretive maps for specific uses of land.

Some of the terms used in this soil survey have a special meaning in soil science. Many of these terms are defined in the Glossary.

Building Site Development

The degree and kind of soil limitations that affect shallow excavations, dwellings without basements, small commercial buildings, and local roads and streets are indicated in table 6. A *slight* limitation indicates that soil properties are favorable for the specified use; any limitation is minor and easily overcome. A *moderate* limitation indicates that soil properties and site features are unfavorable for the specified use, but the limitations can be overcome or minimized by special planning and design. A *severe* limitation indicates that one or more soil properties or site features are so unfavorable or difficult to overcome that a major increase in construction effort, special design, or intensive maintenance is required. A *very severe* limitation is especially difficult to overcome. For some soils rated very severe, such costly measures may not be feasible.

Shallow excavations are made for pipelines, sewerlines, telephone and power transmission lines, basements, and open ditches. Such digging or trenching is influenced by soil wetness caused by a seasonal high water table, the texture and consistence of soils, and the tendency of soils to cave in or slough. In addition, excavations are affected by slope of the soil and the probability of flooding. Ratings do not apply to soil horizons below a depth of 6 feet unless otherwise noted.

Dwellings and small commercial buildings referred to in table 6 are built on undisturbed soil and have foundation loads of a dwelling no more than three stories high. Separate ratings are made for small commercial buildings with basements and for dwellings without basements. For such structures, soils should be sufficiently stable that cracking or subsidence of the structure from settling or shear failure of the foundation do not occur. These ratings were determined from estimates of the shear strength, compressibility, and shrink-swell potential of the soil. Soil texture, plasticity and in-place density, soil wetness, and depth to a seasonal high water table were also considered. Soil wetness and depth to a seasonal high water table indicate potential difficulty in providing adequate drainage for basements, lawns, and gardens. Slope is also an important consideration in the choice of sites for these structures and was considered in determining the ratings. Susceptibility to flooding is a serious limitation.

Roads and streets referred to in table 6 have an all-weather surface that can carry light to medium traffic all year. They consist of a subgrade of the underlying soil material; a base of gravel, crushed rock fragments, or soil material stabilized with lime or cement; and a flexible or rigid surface, commonly asphalt or concrete. The roads are graded with soil material at hand, and most cuts and fills are less than 6 feet deep.

The load-supporting capacity and the stability of the soil as well as the quantity and workability of fill material available are important in design and construction of roads and streets. The AASHTO and Unified classifica-

tions of the soil and the soil texture, density, and shrink-swell potential, are indicators of the traffic-supporting capacity used in making the ratings. Soil wetness, flooding, and slope, all of which affect stability and ease of excavation, were also considered.

Sanitary Facilities

Favorable soil properties and site features are needed for proper functioning of septic tank absorption fields, sewage lagoons, and sanitary landfills. The nature of the soil is important in selecting sites for these facilities and in identifying limiting soil properties and site features to be considered in design and installation. Also, those soil properties that affect ease of excavation or installation of these facilities will be of interest to contractors and local officials. Table 7 shows the degree and kind of limitations of each soil for these uses and for use of the soil as daily cover for landfills.

If the degree of soil limitation is expressed as *slight*, soils are favorable for the specified use and limitations are minor and easily overcome; if *moderate*, soil properties or site features are unfavorable for the specified use, but limitations can be overcome by special planning and design; and if *severe*, soil properties or site features are so unfavorable or difficult to overcome that major soil reclamation, special designs, or intensive maintenance are required.

Septic tank absorption fields are subsurface systems of tile or perforated pipe that distribute effluent from a septic tank into the natural soil. Only the soil horizons between depths of 18 and 72 inches are evaluated for this use. The soil properties and site features considered are those that affect the absorption of the effluent and those that affect the construction of the system.

Properties and features that affect absorption of the effluent are permeability, depth to seasonal high water table, depth to bedrock, and susceptibility to flooding. Stones, boulders, and a shallow depth to bedrock interfere with installation. Excessive slope can cause lateral seepage and surfacing of the effluent in downslope areas. Also, soil erosion and soil slippage are hazards if absorption fields are installed on sloping soils.

Percolation tests are performed to determine the absorptive capacity of the soil and its suitability for use as septic tank absorption fields. These tests should be performed during the season when the water table is highest and the soil is at minimum absorptive capacity.

On many of the soils that have moderate or severe limitations for use as septic tank absorption fields, it may be possible to install a special system to lower the seasonal water table or the size of the absorption field could be increased so that performance is satisfactory.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons have a nearly level floor and cut slopes or embankments of compacted, nearly impervious soil material. They generally are designed to hold sewage within a depth of 2 to 5 feet. Impervious soil for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Soils that very are high in organic matter and those that have stones and boulders are not suitable. Unless the soil has very slow permeability, contamination of ground water is a hazard where the seasonal high water table is above the level of the lagoon floor. In soils where the water table is seasonally high, seepage of ground water into the lagoon can seriously reduce the lagoon's capacity for decomposing liquid waste. Slope, depth to bedrock, and susceptibility to flooding also affect the suitability of sites for sewage lagoons or the cost of construction. Shear strength and permeability of compacted soils affect the performance of embankments.

Sanitary landfill is a method of disposing of solid waste, either in excavated trenches or on the surface of the soil. The waste is spread in compacted layers and covered with thin layers of soil. Landfill areas are subject to heavy vehicular traffic. Ease of excavation, risk of polluting ground water, and trafficability affect the suitability of a soil for this use. The best soils have a loamy or silty texture, have moderate or slow permeability, have a seasonal water table, and are not subject to flooding. In areas where the seasonal water table is high, water seeps into the trenches and causes problems in excavating and filling the trenches. Also, seepage into the refuse increases the risk of pollution of ground water. Clayey soils are likely to be sticky and difficult to spread. Sandy or gravelly soils generally have rapid permeability that might allow noxious liquids to contaminate local ground water.

Unless otherwise stated, the limitations in table 7 apply only to soil material within a depth of about 6 feet. If the trench is deeper, a limitation of slight or moderate may not be valid. Site investigation is needed before a site is selected.

In the area type of sanitary landfill, refuse is placed on the surface of the soil in successive layers. The limitations caused by soil texture do not apply to this type of landfill. Soil wetness, however, may be a limitation because of the difficulty in operating equipment.

Daily cover for sanitary landfills should be soil that is easy to excavate and spread over the compacted fill during both wet and dry weather. Soils that are loamy or silty are better than other soils. Clayey soils may be sticky and difficult to spread; sandy soils may be subject to soil blowing.

The soils selected for final cover of landfills should be suitable for growing plants. In comparison with other horizons, the A horizon in most soils has the best workability, the most organic matter, and the best potential for growing plants. Thus, for either the area- or trench-type landfill, stockpiling material from the A horizon for use as the surface layer of the final cover is desirable.

Where it is necessary to bring in soil material for daily or final cover, thickness of suitable soil material available and depth to a seasonal high water table in soils sur-

rounding the sites should be evaluated. Other factors to be evaluated are those that affect reclamation of the borrow areas, such as slope, erodibility, and potential for plant growth.

Construction Materials

The suitability of each soil as a source of roadfill, sand, gravel, and topsoil is indicated in table 8 by ratings of good, fair, or poor. The texture, thickness, and organic-matter content of each soil horizon are important factors in rating soils for use as construction materials. Each soil is evaluated to the depth observed, generally about 6 feet.

Roadfill is soil material used in embankments for roads. The ratings reflect the ease of excavating and working the material and the expected performance of the material after it has been compacted and adequately drained. The performance of soil after it is stabilized with lime or cement is not considered in the ratings, but information about soil properties that determine such performance is given in the descriptions of series.

The ratings apply to the soil material between the A horizon and a depth of 5 to 6 feet. It is assumed that soil horizons will be mixed during excavation and spreading. Many soils have horizons of contrasting suitability within the profile. The table of engineering properties in the section "Soil Properties" provides more specific information about the nature of each horizon that can help determine its suitability for roadfill.

According to the Unified soil classification system, soils rated *good* have low shrink-swell potential. They are at least moderately well drained and have slopes of 15 percent or less. Soils rated *fair* have a plasticity index of less than 15 and have other limiting features, such as high shrink-swell potential, steep slopes, and wetness. If the thickness of suitable material is less than 3 feet, the entire soil is rated *poor*, regardless of the quality of the suitable material.

Sand and gravel are used in great quantities in many kinds of construction. The ratings in table 8 provide guidance as to where to look for probable sources and are based on the probability that soils in a given area contain sizable quantities of sand or gravel. A soil rated *good* or *fair* has a layer of suitable material at least 3 feet thick, the top of which is within a depth of 6 feet. Coarse fragments of soft bedrock material, such as shale and siltstone, are not considered to be sand and gravel. Fine-grained soils are not suitable sources of sand and gravel. All soils in the parish are unsuitable as a source of sand or gravel because they contain excess fines.

The ratings do not take into account depth to the water table or other factors that affect excavation of the material. Descriptions of grain size, kinds of minerals, reaction, and stratification are given in the soil series descriptions and in the section "Soil Properties."

Topsoil is used in areas where vegetation is to be established and maintained. Suitability is affected mainly by the ease of working and spreading the soil material in preparing a seedbed and by the ability of the soil material to sustain the growth of plants. Also considered is the damage that would result to the area from which the topsoil is taken.

Soils rated *good* have at least 16 inches of friable loamy material at their surface. They are free of stones, are low in content of gravel and other coarse fragments, and have gentle slopes. They are low in soluble salts, which can limit plant growth. They are naturally fertile or respond well to fertilization. They are not so wet that excavation is difficult during most of the year.

Soils rated *fair* are firm loamy or clayey soils in which the suitable material is only 8 to 16 inches thick.

Soils rated *poor* are very firm clayey soils, soils with suitable layers less than 8 inches thick, and poorly drained soils.

Although a rating of *good* is not based entirely on high content of organic matter a surface horizon is preferred for topsoil because of its organic-matter content. This horizon is designated as A1 or Ap in the soil series descriptions. The absorption and retention of moisture and nutrients for plant growth are greatly increased by organic matter.

Water Management

Many soil properties and site features that affect water management practices have been identified in this soil survey. In table 9 the degree of soil limitation and soil and site features that affect use are indicated for each kind of soil. This information is significant in planning, installing, and maintaining water control structures.

Soil and site limitations are expressed as slight, moderate, and severe. *Slight* means that the soil properties and site features are generally favorable for the specified use and that any limitation is minor and easily overcome. *Moderate* means that some soil properties or site features are unfavorable for the specified use but can be overcome or modified by special planning and design. *Severe* means that the soil properties and site features are so unfavorable and so difficult to correct or overcome that major soil reclamation, special design, or intensive maintenance is required.

Pond reservoir areas hold water behind a dam or embankment. Soils suitable for this use have low seepage potential, which is determined by the permeability and depth to permeable material.

Embankments, dikes, and levees require soil material that is resistant to seepage, erosion, and piping and has favorable stability, shrink-swell potential, shear strength, and compaction characteristics. Organic matter in a soil downgrades the suitability of a soil for use in embankments, dikes, and levees.

Drainage of soil is affected by such soil properties as permeability, texture, structure, depth to claypan or other layers that influence rate of water movement, depth to the water table, slope, stability of ditchbanks, susceptibility to flooding, and availability of outlets for drainage.

Terraces and diversions are embankments, or a combination of channels and ridges, constructed across a slope to intercept runoff. They allow the water to soak into the soil or flow slowly to an outlet. Features that affect suitability of a soil for terraces are uniformity and steepness of slope, permeability, ease of establishing vegetation, resistance to water erosion, and piping.

Grassed waterways are constructed to channel runoff at nonerosive velocities to outlets. Features that affect the use of soils for waterways are slope, erodibility, and wetness.

Recreation

The soils of the survey area are rated in table 10 according to limitations that affect their suitability for camp areas, picnic areas, playgrounds, and paths and trails. The ratings are based on such restrictive soil features as flooding, wetness, slope, and texture of the surface layer. Not considered in these ratings, but important in evaluating a site, are location and accessibility of the area, size and shape of the area and its scenic quality, the ability of the soil to support vegetation, access to water, potential water impoundment sites available, and either access to public sewerlines or capacity of the soil to absorb septic tank effluent. Soils subject to flooding are limited, in varying degree, for recreational use by the duration of flooding and the season when it occurs. Onsite assessment of height, duration, and frequency of flooding is essential in planning recreational facilities.

In table 10 the degree of the limitation of the soils is expressed as slight, moderate, or severe. *Slight* means that the soil properties are generally favorable and that the limitations are minor and easily overcome. *Moderate* means that the limitations can be overcome or alleviated by planning, design, or special maintenance. *Severe* means that soil properties are unfavorable and that limitations can be offset only by costly soil reclamation, special design, intensive maintenance, limited use, or by a combination of these measures.

The information in table 10 can be supplemented by information in other parts of this survey. Especially helpful are interpretations for septic tank absorption fields, given in table 7, and interpretations for dwellings without basements and for local roads and streets, given in table 6.

Camp areas require such site preparation as shaping and leveling for tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The best soils for this use have mild slopes and are not wet or subject to flooding during the period of use.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The best soils for use as picnic areas are firm when wet, and are not subject to flooding during the period of use.

Playgrounds require soils that can withstand intensive foot traffic. The best soils are almost level and not wet or subject to flooding during the season of use. The surface is firm after rains.

The design and layout of paths and trails for walking, horseback riding, and bicycling should require little or no cutting and filling. The best soils for this use are those that are not wet, are firm after rains, and are not subject to flooding more than once during the period of use.

Wildlife Habitat

RAY SMITH, JR., biologist, Soil Conservation Service, assisted in preparing this section.

Wildlife plays an important part in the economy and environment of St. Martin Parish. The wildlife in this area is highly varied and, in some areas, very abundant.

The openland part of St. Martin Parish is the habitat for such species as cottontail rabbit, quail, doves, wintering waterfowl, nutria, snipe, meadowlarks, killdeer, and many other nongame animals and birds. These animals and birds have varying levels of population density, depending on the season and habitat conditions. Fish are present in private ponds, lakes, and bayous outside the Atchafalaya Floodway in moderately high to low populations. They are represented by such species as largemouth bass, crappie, sunfishes, buffalo, catfish, gar, bowfin, and others.

The woodland in this area supports such animals as deer, squirrel (Gray and Fox), swamp rabbits, raccoon, opossum, fox, and many forms of nongame birds, reptiles, and amphibians.

The area lying inside the Atchafalaya Floodway contains a significant acreage of swamp and open water. This area has high to moderate populations of such creatures as deer, squirrel (Gray and Fox), swamp rabbits, mink, otter, nutria, raccoon, opossum, woodcock (during the winter), wood ducks, and wintering ducks, wading birds (ibis, egrets and herons), songbirds and other nongame birds, reptiles, and amphibians. This area has several large breeding colonies of ibis and egrets during the summer months. Most lakes and streams are inside the Atchafalaya Floodway. They have moderate to low populations of fish such as largemouth, white and yellow bass, crappies, sunfishes, mullet, shad, bowfin, gar, buffalo fish, catfish, paddlefish, and others. The fish population of this area is generally low because of the high turbidity of the waters. The swamps inside the floodway are thought to be the habitat for many of our threatened species of wildlife, such as the bald eagle, osprey, wood ibis, ivory-billed woodpecker, groove-billed ani, Bacham's warbler, and southern panther. The American alligator also maintains a moderate population within this area.

Crawfish are important economically. Many are grown in managed ponds mostly on the clayey soils. They are also rotated with rice crops. Commercial fishermen take many tons of crawfish out of unmanaged areas inside the Atchafalaya Floodway, mainly in areas of Fausse soils

during winter and spring when they are flooded (fig. 9). Crawfish processing facilities are numerous throughout the parish. The town of Breaux Bridge is commonly known as the crawfish capital of the world.

Soils directly affect the kind and amount of vegetation that is available to wildlife as food and cover, and they affect the construction of water impoundments. The kind and abundance of wildlife that populate an area depend largely on the amount and distribution of food, cover, and water. If any one of these elements is missing, inadequate, or inaccessible, wildlife will either be scarce or will not inhabit the area.

If the soils have the potential, wildlife habitat can be created or improved by planting appropriate vegetation, by properly managing the existing plant cover, and by fostering the natural establishment of desirable plants. The native plants on selected soils in wetlands are listed in table 11.

In table 12 the soils in the survey area are rated according to their potential to support the main kinds of wildlife habitat in the area. This information can be used in—

1. Planning the use of parks, wildlife refuges, nature study areas, and other developments for wildlife.
2. Selecting soils that are suitable for creating, improving, or maintaining specific elements of wildlife habitat.
3. Determining the intensity of management needed for each element of the habitat.
4. Determining which areas are suitable to aquire for wildlife management.

The potential of the soil is rated good, fair, poor, or very poor. A rating of *good* means that the element of wildlife habitat or the kind of habitat is easily created, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected if the soil is used for the designated purpose. A rating of *fair* means that the element of wildlife habitat or kind of habitat can be created, improved, or maintained in most places. Moderate intensity of management and fairly frequent attention are required for satisfactory results. A rating of *poor* means that limitations are severe for the designated element or kind of wildlife habitat. Habitat can be created, improved, or maintained in most places, but management is difficult and requires intensive effort. A rating of *very poor* means that restrictions for the element of wildlife habitat or kind of wildlife are very severe, and that unsatisfactory results can be expected. Wildlife habitat is impractical or even impossible to create, improve, or maintain on soils having such a rating.

The elements of wildlife habitat are briefly described in the following paragraphs.

Grain and seed crops are seed-producing annuals used by wildlife. Examples are corn, grain sorghum, wheat, oats, millet, cowpeas, soybeans, and sunflowers. The main soil properties that affect the growth of grain and seed crops are depth of the root zone, texture of the surface layer, available water capacity, wetness, slope, and flood hazard. Soil temperature and soil moisture are also important.

Grasses and legumes are domestic perennial grasses and herbaceous legumes that are planted for wildlife food and cover. Examples are fescue, ryegrass, rescuegrass, clover, and vetch. The main soil properties that affect the growth of grasses and legumes are depth of the root zone, texture of the surface layer, available water capacity, wetness, flood hazard, and slope. Soil temperature and soil moisture are also important.

Wild herbaceous plants are native or naturally established herbaceous grasses and forbs, including weeds, that provide food and cover for wildlife. Examples are bluestem, beggarweed, partridgepea, and fescue. The main soil properties that affect the growth of these plants are depth of the root zone, texture of the surface layer, available water capacity, wetness, and flood hazard. Soil temperature and soil moisture are also important.

Hardwood trees and the associated woody understory provide cover for wildlife and produce nuts or other fruit, buds, catkins, twigs, bark, or foliage that wildlife eat. Examples of native plants are oak, cherry, sweetgum, wildplum, hawthorn, persimmon, sassafras, sumac, pecan, blackberry, grape, and dewberry. Examples of fruit-producing shrubs that are commercially available and suitable for planting on soils rated good are shrub lespedeza, autumn-olive, and crabapple. The main soil properties that affect growth of hardwood trees and shrubs are depth of the root zone, available water capacity, and wetness.

Coniferous plants are cone-bearing trees, shrubs, or ground cover plants that furnish habitat or supply food in the form of browse, seeds, or fruitlike cones. Examples are pine and cedar. Soil properties that have a major effect on the growth of coniferous plants are depth of the root zone, available water capacity, and wetness.

Wetland plants are annual and perennial wild herbaceous plants that grow on moist or wet sites, exclusive of submerged or floating aquatics. They produce food or cover for wildlife that use wetland as habitat. Examples of wetland plants are smartweed, wild millet, rushes, sedges, reeds, wildrice, and cattail. The main soil properties affecting wetland plants are texture of the surface layer, wetness, reaction, slope, and surface stoniness.

Shallow water areas are bodies of surface water that have an average depth of less than 5 feet and are useful to wildlife. They can be naturally wet areas, or they can be created by dams or levees or by water-control devices in marshes or streams. Examples are muskrat marshes, waterfowl feeding areas, wildlife watering developments, beaver ponds, and other wildlife ponds. The main soil properties affecting shallow water areas are depth to bedrock, wetness, surface stoniness, slope, and permeability. The availability of a dependable water supply is important if water areas are to be developed.

The kinds of wildlife are briefly described in the following paragraphs.

Openland wildlife includes birds and mammals that use areas of croplands, pastures, and meadows and areas of grasses, herbs, shrubs, and vines. These areas produce

grain and seed crops, grasses and legumes, and wild herbaceous plants. The kinds of wildlife attracted to this habitat include bobwhite quail, dove, meadowlark, field sparrow, killdeer, cottontail rabbit, red fox, and robins.

Woodland wildlife includes birds and mammals that use areas of hardwoods or conifers or a mixture of both and associated grasses, legumes, and wild herbaceous plants. Examples of wildlife attracted to this habitat are wild turkey, wood duck, woodcock, thrushes, vireos, woodpeckers, tree squirrels, grey fox, raccoon, deer, swamp rabbit, and black bear.

Wetland wildlife includes birds and mammals that use open, marshy, or swampy shallow-water areas. Examples of wildlife attracted to this habitat are ducks, geese, herons, shore birds, rails, kingfishers, muskrat, mink, and nutria.

Soil Properties

Extensive data on soil properties collected during the soil survey are summarized on the following pages. The two main sources of these data are the many thousands of soil borings made during the course of the survey and the laboratory analyses of selected samples of soil profiles.

When he makes soil borings during field mapping, the soil scientist can identify several important soil properties. He notes the seasonal soil moisture condition, or the presence of free water and its depth in the profile. For each horizon, he notes the thickness of the soil and its color; the texture, or the amount of clay, silt, and sand; the structure, or natural pattern of cracks and pores in the undisturbed soil; and the consistence of soil in-place under the existing soil moisture conditions. He records the root depth of existing plants, determines soil pH or reaction, and identifies any free carbonates.

Samples of soil material are analyzed in the laboratory to verify the field estimates of soil properties and to determine all major properties of key soils, especially properties that cannot be estimated accurately by field observation. Laboratory analyses are not conducted for all soil series in the survey area, but laboratory data for many of the series are available from nearby counties.

The available field and laboratory data are summarized in tables in this section. The tables give the estimated range of engineering properties, the engineering classification, and the physical and chemical properties of each major horizon of each soil in the survey area. They also present pertinent soil and water features, engineering test data, and data obtained from both physical and chemical laboratory analyses of soils.

Engineering Properties

Table 13 gives estimates of engineering properties and classifications for the major horizons of each soil in the survey area. These estimates are the ranges in value that are most likely in areas where the soil is mapped.

Most soils have, within the upper 5 or 6 feet, horizons of contrasting properties. Table 13 gives information for each of these contrasting horizons in a typical profile. Depth to the upper and lower boundaries of each horizon is indicated. More information about the range of properties in each horizon is given for each soil series in the section "Soil Series and Morphology."

Texture is described in table 13 in the standard terms used by the United States Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in soil material that is less than 2 millimeters in diameter. "Loam," for example, is soil material that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If a soil contains gravel or other particles coarser than sand, an appropriate modifier is added, for example, "gravelly loam." Other texture terms are defined in the Glossary.

The two systems commonly used in classifying soils for engineering use are the Unified Soil Classification System and the classification system of the American Association of State Highway and Transportation Officials (AASHTO). In table 13 soils in the survey area are classified according to both systems.

The Unified system (*2*) classifies soils according to properties that affect their use as construction material. Soils are classified according to grain-size distribution of the fraction less than 3 inches in diameter, plasticity index, liquid limit, and organic-matter content. Soils are grouped into 15 classes—eight classes of coarse-grained soils, identified as GW, GP, GM, GC, SW, SP, SM, and SC; six classes of fine-grained soils, identified as ML, CL, OL, MH, CH, and OH; and one class of highly organic soils, identified as Pt.

The AASHTO system (*1*) classifies soils according to those properties that affect their use in highway construction and maintenance. In this system a mineral soil is classified in one of seven basic groups ranging from A-1 through A-7 on the basis of grain-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines. At the other extreme, in group A-7, are fine-grained soils. Highly organic soils are classified in group A-8 on the basis of visual inspection.

Liquid limit and plasticity index indicate the effect of water on the strength and consistence of soil. These indexes are used in both the Unified and the AASHTO soil classification systems. They are also used as indicators in making general predictions of soil behavior.

Range in liquid limit and plasticity index are estimated on the basis of test data from the survey area or from nearby areas and on observations of the many soil borings made during the survey.

Physical and Chemical Properties

Table 14 shows estimated values for several soil characteristics and features that affect behavior of soils in engineering uses. These estimates are given for each major

horizon, at the depths indicated, in the representative profile of each soil. The estimates are based on field observations and on test data for these and similar soils.

Permeability is estimated on the basis of known relationships between the soil characteristics observed in the field—particularly soil structure, porosity, and gradation or texture—that influence the downward movement of water in the soil. The estimates are for vertical water movement when the soil is saturated. Not considered in the estimates is lateral seepage or such transient soil features as plowpans and surface crusts. Permeability of the soil is an important factor to be considered in the plannning and design of drainage systems, in evaluating the potential of soils for septic tank systems and other waste disposal systems, and in many other aspects of land use and management.

Available water capacity is rated on the basis of soil characteristics that influence the ability of the soil to hold water and make it available to plants. Important characteristics are content of organic matter, soil texture, and soil structure. Shallow-rooted plants are not likely to use the available water from the deeper soil horizons. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design of irrigation systems.

Soil reaction is expressed as range in pH values. The range in pH of each major horizon is based on many field checks. For many soils, the values have been verified by laboratory analyses. Soil reaction is important in selecting the crops, ornamental plants, or other plants to be grown; in evaluating soil amendments for fertility and stabilization, and in evaluating the corrosivity of soils.

Shrink-swell potential depends mainly on the amount and kind of clay in the soil. Laboratory measurements of the swelling of undisturbed clods were made for many soils. For others the swelling was estimated on the basis of the kind of clay and on measurements of similar soils. The load-carrying capacity and changes in soil moisture content also influence the swelling of soils. Shrinking and swelling of some soils can cause damage to building foundations, basement walls, roads, and other structures unless special designs are used. A *high* or *very high* shrink-swell potential may indicate special design and added expense if the planned use of the soil will not accommodate large volume changes.

Risk of corrosion, as used in table 14, pertains to potential soil-induced chemical action that dissolves or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to soil moisture, particle-size distribution, total acidity, and electrical conductivity of the soil material. The rate of corrosion of concrete is based mainly on the sulfate content, texture, and acidity of the soil. Protective measures for steel or more resistant concrete help to avoid or minimize damage resulting from the corrosion. Uncoated steel intersecting soil boundaries or soil horizons is more susceptible to corrosion than an installation that is entirely within one kind of soil or within one soil horizon.

Classification of the Soils

This section describes the soil series of the survey area, defines the current system of classifying soils, and classifies the soils of the area according to that system.

Soil Series and Morphology

In this section, each soil series in the survey area is described in detail. The series descriptions are presented in alphabetic order by series name.

For each series, some facts about the soil and its parent material are presented first. Then a pedon, a small three dimensional area of soil typical of the soil series in the survey area, is described. The detailed descriptions of each soil horizon follow standards in the Soil Survey Manual (*11*). Unless otherwise noted, colors described are for moist soil.

Following the pedon description is the range of important characteristics of the soil series mapped in this survey area. In the last paragraph, soils of the specified series are compared with those of similar series and with those of other series nearby. Phases, or mapping units, of each soil series are described in the section "Soil Maps for Detailed Planning."

Acy Series

The soils of the Acy series are somewhat poorly drained and moderately slowly permeable. They formed in loamy loess deposits on the terrace uplands in the northwestern part of the parish.

Most of the acreage is in pasture, crops, and the Anse La Butte oil and gas field.

Typical pedon of Acy silt loam in a pasture 4 miles west of Breaux Bridge, 1.5 miles southwest of State Highway 354, 0.28 miles south of gravel road, Spanish Land Grant Section 62, T. 9 S., R. 5 E.

Ap—0 to 6 inches, dark grayish brown (10YR 4/2) silt loam; weak fine subangular blocky structure; friable; common fine roots; few fine brown concretions; neutral; clear wavy boundary.

B21t—6 to 16 inches, grayish brown (10YR 5/2) silty clay loam; many medium distinct yellowish brown (10YR 5/6) mottles; moderate medium prismatic structure that parts to moderate medium subangular blocky; very firm; common fine roots between peds and few fine roots inside peds; few fine pores; thick continuous very dark gray and dark gray clay films on surface of peds; few medium dark brown concretions; thin patches of silt between peds; mildly alkaline; gradual wavy boundary.

B22t—16 to 24 inches, yellowish brown (10YR 5/6) silty clay loam; common medium distinct grayish brown (10YR 5/2) mottles; moderate medium prismatic structure that parts to moderate medium subangular blocky; firm; few fine roots; few fine pores; thick continuous dark gray clay films on surface of peds; common medium calcium carbonate concretions; thin patches of silt between peds; moderately alkaline; gradual wavy boundary.

B23t—24 to 56 inches, yellowish brown (10YR 5/4) silt loam; common medium faint dark gray (10YR 4/1) mottles; moderate medium subangular blocky structure; friable; few fine roots; few fine and medium pores; thin continuous grayish brown clay films on surface of peds and inside pores; common medium soft dark brown bodies; moderately alkaline; gradual wavy boundary.

Cg—56 to 75 inches, gray (10YR 6/1) silt loam; many coarse yellowish brown (10YR 5/6) mottles; massive; friable; common medium and fine pores; common fine dark brown concretions; moderately alkaline.

The A horizon is dark gray, dark grayish brown or grayish brown 5 to 8 inches thick. It is medium acid through neutral.

The upper part of the B2t horizon is grayish brown, dark grayish brown or dark gray. It is slightly acid through moderately alkaline. The lower part is yellowish brown or light olive brown and is neutral through moderately alkaline. Some subhorizons of the B horizon have 1 to 10 percent calcium carbonate concretions.

The C horizon is gray, light brownish gray, or grayish brown. It is mildly or moderately alkaline.

The Acy soils are associated with Coteau, Frost, and Baldwin soils. They are more alkaline in the subsoil than Coteau soils. Acy soils are better drained than Frost and Baldwin soils. Also, they are less clayey than the Baldwin soils.

Baldwin Series

The soils of the Baldwin series are poorly drained and very slowly permeable. They formed in clayey Mississippi River alluvium. These soils are on the Bayou Teche and Catahoula Coulee natural levees on the alluvial plain in the western part of the parish.

Most of the acreage is in crops. A small acreage is in pasture.

Typical pedon of Baldwin silty clay loam is 4 miles east of Arnaudville, 0.57 mile south of State Highway 737, 300 yards east of field road and 100 yards south of fence, Spanish Land Grant Section 48, T. 7 S., R. 6 E.

Ap—0 to 6 inches, dark gray (10YR 4/1) silty clay loam; weak medium subangular blocky structure; firm; common fine roots; few fine pores; few fine brown concretions; medium acid; clear wavy boundary.

B21tg—6 to 20 inches; dark gray (10YR 4/1) silty clay; moderate medium subangular blocky structure; firm; common fine roots; few fine pores; thick continuous very dark gray clay films on surface of peds; few fine and medium brown concretions; slightly acid; gradual wavy boundary.

B22tgca—20 to 26 inches; gray (10YR 5/1) silty clay; common medium distinct yellowish brown (10YR 5/6) mottles; weak medium subangular blocky structure; friable; few fine roots; thick continuous dark gray clay films on surface of peds; common medium calcium carbonate concretions; mildly alkaline; gradual wavy boundary.

B3g—26 to 60 inches; stratified dark gray (10YR 4/1) silty clay and gray (10YR 5/1) silty clay loam; few medium distinct olive (5Y 5/4) mottles; moderate coarse prismatic structure that parts to moderate medium subangular blocky structure; firm; few fine roots; few fine pores; mildly alkaline.

The A horizon is very dark gray, dark gray, or dark grayish brown and is 5 to 9 inches thick. It is medium acid or slightly acid.

The B2 horizon is dark gray or gray silty clay or clay. It is slightly acid through mildly alkline. Some subhorizons of the B2 horizon have 1 to 10 percent calcium carbonate concretions.

The B3 horizon is silty clay or silty clay loam and is dark gray and gray. It is neutral through moderately alkaline.

The Baldwin soils are associated with Dundee, Gallion, Acy, Loreauville, Iberia, and Sharkey soils. They have a higher clay content and are more poorly drained than the Dundee, Gallion, Acy, and Loreauville soils. Baldwin soils lack the thick, dark-colored surface layer of the Iberia soils and have more distinct profile development than the Sharkey soils.

Calhoun Series

The soils of the Calhoun series are poorly drained and slowly permeable. They formed in loamy loess deposits. These soils are in depressional areas on the terrace uplands in the northwestern and southwestern part of the parish.

Most of the acreage is in pasture. A small acreage is in crops.

Typical pedon of Calhoun silt loam in a pasture 3.25 miles northwest of Breaux Bridge, 450 feet east of State Highway 354, 200 feet north of asphalt road, Spanish Land Grant Section 140, T. 9 S., R. 5 E.

Ap—0 to 4 inches; dark grayish brown (10YR 4/2) silt loam; few fine faint dark yellowish brown mottles; moderate fine granular structure; friable; common fine roots; medium acid, clear smooth boundary.

A2—4 to 13 inches; grayish brown (10YR 5/2) silt loam; common medium distinct yellowish brown (10YR 5/4) mottles; massive; firm; few fine roots; common fine pores; few fine black concretions; strongly acid; clear irregular boundary.

B21tg—13 to 24 inches; gray (10YR 5/1) silty clay loam; common medium distinct yellowish brown (10YR 5/6) mottles; moderate medium prismatic structure that parts to moderate medium subangular blocky; firm; few fine roots; few fine pores; thick continuous clay films on surface of peds and in pores; common medium black concretions; tongues of grayish brown A2 material that are 1 to 1.5 inches wide and extend to a depth of 23 inches; very strongly acid; gradual wavy boundary.

B22tg—24 to 57 inches; gray (10YR 5/1) silt loam; common medium distinct dark yellowish brown (10YR 4/4) and yellowish brown (10YR 5/6) mottles; moderate medium prismatic structure that parts to moderate medium subangular blocky; firm; few fine roots; few fine pores; thin patchy clay films on surface of peds and in pores; common medium black and brown concretions; very strongly acid; gradual wavy boundary.

B3—57 to 70 inches; light brownish gray (10YR 6/2) silt loam; many coarse distinct dark yellowish brown (10YR 4/4) and few medium distinct yellowish brown (10YR 5/6) mottles; massive; friable; few medium and coarse black and brown stains; slightly acid.

The A horizon is dark grayish brown, grayish brown, or gray and is 3 to 4 inches thick. It is strongly acid or medium acid.

The A2 horizon is gray, grayish brown, or light brownish gray. It is strongly acid or medium acid. Tongues of A2 material extend into the B2 horizon for 9 to 13 inches.

The B2 horizon is gray or light brownish gray silty clay loam or silt loam. It is very strongly acid or strongly acid. The B3 horizon is gray or light brownish gray. It is strongly acid through slightly acid.

The Calhoun soils are associated with Coteau, Memphis, and Patoutville soils. They are more poorly drained and grayer colored in the subsoil than the associated soils.

Convent Series

The soils of the Convent series are somewhat poorly drained and moderately permeable. They formed in loamy Atchafalaya River alluvium in areas of lake fill and on natural levees on the Atchafalaya Floodway part of the alluvial plain.

Most of the acreage is in woodland and is used for wildlife habitat and as part of the Atchafalaya Floodway. A small acreage is in oil and gas fields.

Typical pedon of Convent silt loam in an area of Convent soils, frequently flooded, 3 miles northeast of Butte La Rose landing, 2 miles south of the junction of Little

Atchafalaya River and Bayou La Rose cutoff, 200 feet northeast of Bayou La Rose cutoff channel, Spanish Land Grant Section 16, T. 9 S., R. 8 E.

A1—0 to 4 inches; dark grayish brown (10YR 4/2) silt loam; weak fine granular stucture; friable; many fine and medium roots; neutral; clear wavy boundary.

C1—4 to 20 inches; grayish brown (10YR 5/2) very fine sandy loam; common medium faint brown (10YR 5/3) mottles; massive; friable; common fine roots; faint bedding planes; moderately alkaline; abrupt smooth boundary.

C2—20 to 28 inches; grayish brown (10YR 5/2) very fine sandy loam; common medium faint yellowish brown (10YR 5/4) and common medium distinct yellowish brown (10YR 5/6) mottles; massive; friable; few fine roots; faint bedding planes; moderately alkaline, abrupt; smooth boundary.

C3—28 to 40 inches; grayish brown (10YR 5/2) silt loam; massive; friable; faint bedding planes; moderately alkaline; abrupt wavy boundary.

C4—40 to 60 inches; grayish brown (10YR 5/2) very fine sandy loam; common medium faint yellowish brown (10YR 5/4) and common medium distinct yellowish brown (10YR 5/6) mottles; massive; friable; faint bedding planes; moderately alkaline.

The A horizon is dark grayish brown, dark brown, grayish brown, or brown silt loam or very fine sandy loam. It is neutral through moderately alkaline.

The C horizon is grayish brown or dark grayish brown silt loam or very fine sandy loam. The C horizon of some pedons below a 40 inch depth contains thick strata of loamy very fine sand, silty clay loam, silty clay, or clay. The C horizon is mildly alkaline or moderately alkaline.

The Convent soils are associated with Fausse soils and Hydraquents. Convent soils are better drained than those soils. They are coarser textured than Fausse soils.

Coteau Series

The soils of the Coteau series are somewhat poorly drained and moderately slowly permeable. They formed in loamy loess deposits on the terrace uplands in the northwestern and southwestern parts of the parish.

Most of the acreage is in crops. A small acreage is in pasture.

Typical pedon of Coteau silt loam in an area of Coteau-Frost complex, gently undulating, 1.25 miles southwest of Cade, 40 feet south of east-west gravel road, NE1/4NE1/4 sec. 23, T. 11 S., R. 5 E.

Ap—0 to 8 inches; dark brown (10YR 4/3) silt loam; few medium faint light brownish gray (10YR 6/2) mottles; weak fine granular structure; very friable; many fine roots; common fine dark brown and black concretions; strongly acid; clear wavy boundary.

B21t—8 to 17 inches; dark brown (7.5YR 4/4) silt loam; few fine distinct pale brown mottles; weak medium prismatic structure that parts to moderate medium subangular blocky; friable; common fine roots; few fine pores; thin continuous clay films on surface of peds; few fine soft black bodies; strongly acid; gradual irregular boundary.

B&A—17 to 26 inches; dark brown (7.5YR 4/4) silt loam; common medium distinct light brownish gray (10YR 6/2) mottles; moderate medium prismatic structure that parts to moderate medium subangular blocky; friable; few fine roots, few fine pores in B part; common fine and medium pores in A part; thin continuous clay films on surface of peds; pale brown silt loam bridgings 4 to 7 mm. thick between prisms make up about 10 percent of horizon; common fine black concretions; strongly acid; gradual irregular boundary.

B3g—26 to 70 inches; light brownish gray (2.5Y 6/2) silt loam; many coarse prominent dark brown (7.5YR 4/4) and common medium prominent strong brown (7.5YR 5/6) mottles; weak coarse prismatic structure that parts to weak medium subangular blocky; friable; common fine and medium pores; common medium dark brown brittle bodies; medium acid; gradual wavy boundary.

The A horizon is grayish brown, dark grayish brown, or dark brown and is 4 to 9 inches thick. It is medium or strongly acid.

The B2 horizon is dark brown, brown, or dark yellowish brown silty clay loam or silt loam mottled with shades of brown or gray. It is strongly acid or medium acid. The A horizon part of the B & A horizon is pale brown, grayish brown, or light brownish gray.

The B3 horizon is light brownish gray or grayish brown. It is strongly acid through slightly acid.

The Coteau soils are associated with Calhoun, Frost, Acy, Patoutville, and Memphis soils. They are better drained than Calhoun and Frost soils. These soils are more acid throughout than Acy soils. They lack red mottles and are browner in the subsoil than Patoutville soils. They are more poorly drained than Memphis soils.

Dundee Series

The soils of the Dundee series are somewhat poorly drained and moderately slowly permeable. They formed in loamy Mississippi River alluvium. These soils are on the Bayou Teche and Catahoula Coulee natural levees on the alluvial plain in the western part of the parish.

Most of the acreage is in crops. A small acreage is used for pastures and homesites.

A typical pedon of Dundee silt loam 3.5 miles east of Arnaudville, 0.57 mile south of State Highway 737, 200 feet east of north-south asphalt road, Spanish Land Grant section 48, T. 7 S., R. 6 E.

Ap—0 to 7 inches; dark grayish brown (10YR 4/2) silt loam; weak fine granular structure; very friable; many fine roots; few fine black and brown concretions; medium acid; abrupt smooth boundary.

B21t—7 to 19 inches; dark grayish brown (10YR 4/2) silty clay loam; many medium distinct yellowish brown (10YR 5/8) mottles; moderate coarse prismatic structure that parts to moderate medium subangular blocky, firm; common fine roots between peds; common fine pores; thin continuous clay films on surface of peds; few medium brown concretions; strongly acid; gradual wavy boundary.

B22t—19 to 42 inches; grayish brown (10YR 5/2) silty clay loam; common medium distinct strong brown (7.5YR 5/8) and common medium faint pale brown (10YR 6/3) mottles; weak coarse prismatic structure that parts to moderate medium subangular blocky; firm; few fine roots between peds; common fine pores; thin continuous clay films on surface of peds; medium acid; abrupt wavy boundary.

IICg—42 to 70 inches; gray (10YR 6/1) silty clay; common fine distinct dark yellowish brown mottles; massive; very firm; few fine pores; common medium black concretions; neutral.

The A horizon is dark grayish brown, grayish brown, or brown and is 4 to 8 inches thick. It is strongly acid or medium acid.

The B2 horizon is strongly acid or medium acid.

The IIC horizon is gray, light brownish gray, or grayish brown silt loam, silty clay, or silty clay loam. It is medium acid through neutral.

The Dundee soils are associated with Gallion, Loreauville, Baldwin, and Sharkey soils. They are more poorly drained than the Gallion soils and lack the carbonate concretions that are typical of Loreauville soils. Dundee soils have a lower clay content and are better drained than the Baldwin and Sharkey soils.

Fausse Series

The soils of the Fausse series are very poorly drained and very slowly permeable. They formed in clayey Mississippi River alluvium. These soils occur mostly in swamp areas at low elevations throughout the alluvial plain.

Most of the acreage is in woodland. A small acreage is in oil and gas fields.

Typical pedon of Fausse soil in an area of Fausse association, 5 miles southeast of Coteau Holmes, midway between Bayou Grand Gueule and Bayou Benoit, 100 feet east of Lake Dauterive, SW1/4SE1/4 sec. 10, T. 11 S., R. 8 E.

A1—0 to 4 inches; dark grayish brown (10YR 4/2) mucky clay; massive; flows easily between fingers when squeezed leaving hand empty; common fine and medium roots and partially decayed woody material; slightly acid; clear wavy boundary.

B21g—4 to 14 inches; gray (5YR 5/1) clay; common medium prominent strong brown (7.5YR 5/6) mottles; massive; very sticky; few fine roots; neutral; gradual wavy boundary.

B22g—14 to 28 inches; gray (N 5/0) clay; common medium prominent strong brown (7.5YR 5/6) mottles; weak fine angular blocky structure; very sticky; moderately alkaline; clear wavy boundary.

Cg—28 to 60 inches; greenish gray (5GY 5/1) clay; common medium distinct olive (5Y 4/3) mottles; massive; very sticky; moderately alkaline.

The A horizon is dark grayish brown or dark gray clay or mucky clay. It is medium acid through neutral.

The B horizon is dark gray, gray, or greenish gray. It is neutral through moderately alkaline.

The Cg horizon is greenish gray, dark gray, or dark greenish gray.

The Fausse soils are associated with Sharkey and Convent soils. They are more poorly drained than the Sharkey and Convent soils. They lack the cracking to depths of greater than 20 inches that occurs in the Sharkey soils. They have a higher clay content than the Convent soils.

Frost Series

The soils of the Frost series are poorly drained and slowly permeable. They formed in loamy loess deposits. These soils are along drains and in swales of undulating areas on the terrace uplands in the southwestern and northwestern parts of the parish.

Most of the acreage is in crops and pasture.

Typical pedon of Frost silt loam in an area of Memphis-Frost complex, gently undulating, 1.5 miles northwest of Cade, 0.6 mile southwest of State Highway 182, 400 feet north of fence, NW1/4SE1/4 sec. 11, T. 11 S., R. 5 E.

Ap—0 to 6 inches; dark gray (10YR 4/1) silt loam; common medium faint gray (10YR 5/1) mottles; weak fine granular structure; friable; many fine roots; common fine black and brown concretions; very strongly acid; abrupt wavy boundary.

A2g—6 to 20 inches; gray (10YR 5/1) silt loam; many medium faint light gray (10YR 6/1) mottles; weak medium subangular blocky structure; firm; few fine roots; common fine and medium pores; common medium brown concretions; very strongly acid; abrupt irregular boundary.

B21tg—20 to 30 inches; gray (10YR 5/1) silty clay loam; common medium distinct yellowish brown (10YR 5/8) mottles; weak medium prismatic structure that parts to moderate medium subangular blocky; firm; few fine roots; common fine pores; thick continuous very dark gray clay films on surface of peds and in pores; common medium black and brown concretions; tongues of gray A2 material that are 1 to 1.5 inches wide extend to 29 inches; very strongly acid; gradual wavy boundary.

B22tg—30 to 46 inches; light brownish gray (2.5Y 6/2) silty clay loam; common medium distinct yellowish brown (10YR 5/8) mottles; weak medium subangular blocky structure; firm; common fine pores; distinct discontinuous clay films on surfaces of peds and in pores; common medium black concretions; strongly acid; gradual wavy boundary.

B3g—46 to 72 inches; light brownish gray (2.5Y 6/2) silt loam; many coarse distinct dark yellowish brown (10YR 4/4) mottles; weak medium subangular blocky structure; friable; many fine pores; common fine black concretions; slightly acid.

The Ap horizon is dark grayish brown or dark gray and is 5 to 6 inches thick. It is very strongly acid through medium acid.

The A2g horizon is 11 to 19 inches thick. It extends 9 to 16 inches into the B horizon as tongues that are 1 to 4 inches wide. It is very strongly acid or strongly acid.

The B2 horizon is gray, dark gray, or light brownish gray. It is very strongly acid through medium acid.

The B3 horizon is slightly acid or neutral.

The Frost soils are associated with Acy, Coteau, Patoutville, and Memphis soils. They are more poorly drained than the associated soils.

Gallion Series

The soils of the Gallion series are well drained and moderately permeable. They formed in loamy Red River alluvium. These soils are parallel and adjacent to Bayou Teche, Bayou Fusilier, Bayou Vermilion, and Catahoula Coulee on the alluvial plain in the western part of the parish.

Most of the acreage is in homesites and other nonfarm uses. A small acreage is in crops and pasture.

Typical pedon of Gallion silt loam in an area of Gallion-Perry complex, gently undulating, 2 miles south of Arnaudville, 0.57 mile southwest of State Highway 347, 700 feet northeast of Bayou Teche, 42 feet north of turnrow, Spanish Land Grant Section 105, T. 8 S., R. 5 E.

Ap—0 to 6 inches; dark brown (10YR 4/3) silt loam; weak fine granular structure; friable; many fine roots; slightly acid; abrupt wavy boundary.

B21t—6 to 27 inches; reddish brown (5YR 4/4) silty clay loam; moderate medium prismatic structure that parts to weak medium subangular blocky; firm; few fine roots between peds; few fine pores; thick continuous dark reddish brown clay films on surface of peds and in pores; thin silt coatings on surface of prisms; slightly acid; gradual wavy boundary.

B22t—27 to 41 inches; reddish brown (5YR 4/4) silty clay loam; many medium distinct dark brown (7.5YR 4/4) mottles; weak coarse prismatic structure; firm; few fine roots; common fine pores; thick continuous clay films on surface of peds and in pores; common fine black concretions; neutral; abrupt wavy boundary.

C—41 to 60 inches; stratified dark brown (7.5YR 4/4) silt loam and silty clay loam; very thick platy structure; firm; common medium calcium carbonate concretions; moderately alkaline.

The A horizon is brown or dark grayish brown and is 4 to 8 inches thick. It is medium acid through neutral.

The B2 horizon is reddish brown, brown, or yellowish red silty clay loam or silt loam. It is slightly acid through neutral.

The C horizon has the same color range as the B2 horizon. It is stratified silty clay loam, silt loam, or very fine sandy loam. This horizon is slightly acid through moderately alkaline. Some subhorizons have 1 to 10 percent calcium carbonate concretions.

The Gallion soils are associated with Dundee, Baldwin, and Perry soils. They are better drained and redder in color than the Baldwin and Dundee soils. They are better drained and have a lower clay content than Baldwin and Perry soils.

Iberia Series

The soils of the Iberia series are poorly drained and very slowly permeable. They formed in clayey Mississippi River alluvium. These soils are on the Bayou Teche natural levee part of the alluvial plain in the western part of the parish.

Most of the acreage is in crops. A small acreage is in pasture and woodland.

Typical pedon of Iberia silty clay, 3 miles southwest of Parks, 1,000 feet east of State Highway 314, 50 feet south of field road, Spanish Land Grant Section 110, T. 10 S., R. 6 E.

Ap—0 to 7 inches; very dark gray (10YR 3/1) silty clay; massive; firm; many fine roots; neutral; clear wavy boundary.

A1—7 to 14 inches; very dark gray (10YR 3/1) silty clay; few medium distinct yellowish brown (10YR 5/6) mottles; weak medium angular blocky structure; firm; common fine roots; common shiny ped faces; mildly alkaline; gradual wavy boundary.

B2g—14 to 37 inches; gray (10YR 5/1) clay, common medium distinct light olive brown (2.5Y 5/6) mottles; moderate coarse prismatic structure that parts to moderate medium subangular blocky; firm; few fine roots; common coarse black stains; moderately alkaline; gradual wavy boundary.

Cg—37 to 60 inches; light olive gray (5Y 6/2) clay; common medium distinct yellowish brown (10YR 5/6) mottles; weak medium angular blocky structure; firm; many shiny ped faces; moderately alkaline.

The A horizon is black, very dark brown, very dark gray, or very dark grayish brown clay or silty clay 10 to 16 inches thick. It is slightly acid through mildly alkaline.

The B2 horizon is dark gray, olive gray, gray, or grayish brown clay or silty clay. It is neutral through moderately alkaline. Some subhorizons of the B horizon contain 1 to 10 percent calcium carbonate concretions.

The Cg horizon is gray, olive gray, light olive gray, or light brownish gray clay or silty clay. It is mildly alkaline or moderately alkaline.

The Iberia soils are associated with Loreauville, Baldwin, and Sharkey soils. They are more poorly drained and have a higher clay content than Loreauville soils. They have a thicker dark-colored surface layer than Baldwin and Sharkey soils.

Loreauville Series

The soils of the Loreauville series are somewhat poorly drained and moderately slowly permeable. They formed in loamy Mississippi alluvium. These soils are on the natural levees of Catahoula Coulee and Bayou Teche on the alluvial plain in the western part of the parish.

Most of the acreage is in crops.

Typical pedon of Loreauville silt loam 3.25 miles northeast of Breaux Bridge, 0.3 mile southeast of State Highway 347, 400 feet east of State Highway 349, Spanish Land Grant Section 38, T. 9 S., R. 6 E.

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) silt loam; weak fine granular structure; very friable; common fine roots; neutral; clear smooth boundary.

B2tg—8 to 24 inches; grayish brown (2.5Y 5/2) silty clay loam; few fine distinct olive brown mottles; moderate medium prismatic structure that parts to moderate medium subangular blocky; firm; common fine roots; common fine pores; thick continuous very dark grayish brown clay films on surface of peds and in pores; common medium concretions of calcium carbonate; few medium dark brown concretions; mildly alkaline; gradual irregular boundary.

B3g—24 to 48 inches; olive gray (5Y 5/2) loam; common medium faint olive (5Y 5/3) and common medium distinct light olive brown (2.5Y 5/6) mottles; weak medium subangular blocky structure; friable; few fine roots; few fine pores; thin patchy clay films on surface of peds and in pores; common medium and large calcium carbonate concretions; few fine dark brown concretions; moderately alkaline; gradual wavy boundary.

Cg—48 to 62 inches; olive gray (5Y 5/2) silt loam; common medium distinct light olive brown (2.5Y 5/4) mottles; massive; friable; moderately alkaline.

The A horizon is very dark gray, black, or very dark grayish brown and is 6 to 9 inches thick. It is slightly acid to neutral.

The B2 horizon is grayish brown or olive gray. It is neutral through moderately alkaline.

The B3 horizon is loam or silt loam. It is grayish brown to olive gray. It is mildly alkaline or moderately alkaline.

The Cg horizon is gray, olive gray, light olive gray, or grayish brown loam or silt loam.

The Loreauville soils are associated with the Dundee, Baldwin, and Iberia soils. They have a darker colored surface layer than Dundee soils. They are better drained and have a lower clay content than Baldwin and Iberia soils.

Memphis Series

The soils of the Memphis series are well drained and moderately permeable. They formed in loamy loess deposits. These soils are on the terrace uplands in the southwestern and northwestern parts of the parish.

Most of the acreage is in crops and pasture.

Typical pedon of Memphis silt loam in an area of Memphis-Frost complex, gently undulating, 1.5 miles northwest of Cade, 0.6 mile southwest of State Highway 182, 50 feet north of fence, NW1/4SE1/4 sec. 11, T. 11 S., R. 5 E.

Ap—0 to 7 inches; dark brown (10YR 4/3) silt loam; moderate medium granular structure; friable; many fine roots; strongly acid; clear wavy boundary.

B21t—7 to 24 inches; dark brown (7.5YR 4/4) silty clay loam; moderate medium subangular blocky structure; firm; common fine roots; common fine pores; thick continuous clay films on surface of peds and in pores; very strongly acid; gradual wavy boundary.

B22t—24 to 40 inches; dark brown (7.5YR 4/4) silty clay loam; moderate medium subangular blocky structure; firm; few fine roots; few fine pores; thick continuous clay films on surface of peds and in pores; thin patchy silt coatings on vertical surface of peds; very strongly acid; gradual wavy boundary.

B3—40 to 60 inches; dark yellowish brown (10YR 4/4) silt loam; weak medium subangular blocky structure; friable; few fine pores; thin patchy clay films on horizontal surface of peds and in pores; thin patchy silt coatings on vertical surface of peds; medium acid; gradual wavy boundary.

The A horizon is brown, dark brown, or dark yellowish brown and is 3 to 8 inches thick. It is very strongly acid through medium acid.

The B2 horizon is dark yellowish brown or dark brown. It is very strongly acid or strongly acid.

The B3 horizon is dark yellowish brown or yellowish brown. It is strongly acid or medium acid.

The Memphis soils are associated with Frost, Calhoun, Coteau, and Patoutville soils. They are better drained and lack the mottling of the associated soils.

Patoutville Series

The soils of the Patoutville series are somewhat poorly drained and slowly permeable. They formed in loamy loess deposits. These soils are on the terrace uplands in the southwestern part of the parish.

Most of the acreage is in crops. A small acreage is in pasture.

A typical pedon of Patoutville silt loam in a field 2 miles south of Cade, 900 feet west of State Highway 182, 50 feet north of turnrow, Spanish Land Grant Section 28, T. 11 S., R. 6 E.

Ap—0 to 7 inches; dark grayish brown (10YR 4/2) silt loam; weak medium granular structure; friable; common fine roots; common medium black concretions; strongly acid; abrupt wavy boundary.

B21t—7 to 18 inches; dark grayish brown (10YR 4/2) silty clay loam; common medium distinct olive yellow (2.5Y 6/6) and few fine prominent yellowish red mottles; moderate medium prismatic structure that parts to moderate medium subangular blocky; firm; common fine roots between prisms; few fine pores; thick continuous clay films on surface of peds; thin patchy silt coatings on vertical surface of peds; common medium black concretions; neutral; gradual wavy boundary.

B22t—18 to 36 inches; grayish brown (10YR 5/2) silty clay loam; common medium distinct yellowish brown (10YR 5/6) mottles; moderate coarse prismatic structure that parts to moderate medium subangular blocky; firm; few fine roots; few fine pores; thick continuous clay films on surface of peds; thin patchy silt coatings on vertical surface of peds; common medium yellowish brown and few medium black concretions; neutral; gradual wavy boundary.

B3g—36 to 60 inches; gray (10YR 5/1) silt loam; common medium distinct yellowish brown (10YR 5/8) and dark yellowish brown (10YR 4/4) mottles; weak coarse prismatic structure; friable; few fine pores; distinct discontinuous clay films in pores and root channels; few medium brown concretions; neutral.

The A horizon is dark grayish brown or grayish brown and is 6 to 8 inches thick. It is strongly acid or medium acid.

The B2 horizon is mottled with yellowish red, olive yellow, or yellowish brown colors. It is slightly acid or neutral.

The B3 horizon is gray or light brownish gray silt loam or silty clay loam. It is slightly acid or neutral.

The Patoutville soils are associated with Calhoun, Frost, Coteau, and Memphis soils. They are better drained than Calhoun and Frost soils. Patoutville soils are grayer in color and less acid in the subsoil than Coteau soils. They are more poorly drained than Memphis soils.

Perry Series

The soils of the Perry series are poorly drained and very slowly permeable. They formed in clayey Red River alluvium. These soils are in swales parallel and adjacent to Bayou Teche and Catahoula Coulee on the alluvial plain in the western part of the parish. They occur only with Gallion soil in areas of Gallion-Perry complex, gently undulating.

Most of the acreage is in pasture.

Typical pedon of Perry soil in an area of Gallion-Perry complex, gently undulating, 1 mile south of Parks, 200 feet east of State Highway 31, Spanish Land Grant Section 63, T. 10 S., R. 6 E.

Ap—0 to 5 inches; dark grayish brown (10YR 4/2) silty clay loam; moderate fine granular structure; friable; many fine roots; few fine pores; medium acid; abrupt smooth boundary.

B2g—5 to 21 inches; gray (10YR 5/1) clay, common fine distinct yellowish brown and few medium prominent reddish brown (5YR 5/4) mottles; moderate medium subangular blocky structure; firm; common fine black concretions; slightly acid; clear irregular boundary.

IIB3—21 to 39 inches; reddish brown (5YR 4/4) clay; many medium prominent gray (5Y 5/1) mottles; weak medium angular blocky structure; firm; common fine black and brown concretions; slightly acid; gradual wavy boundary.

IIC—39 to 60 inches; reddish brown (5YR 4/4) clay; few medium prominent gray (5Y 5/1) mottles; moderate fine angular blocky structure; firm; mildly alkaline.

The A horizon is dark grayish brown or dark gray and is 4 to 9 inches thick. It is strongly acid or medium acid.

The B2g horizon is gray or dark gray. It is slightly acid through neutral.

The IIB horizon is reddish brown. It is slightly acid through moderately alkaline.

The IIC horizon is reddish brown. It is clay or silty clay and is neutral through moderately alkaline.

The Perry soils are associated with Gallion soils. They are more poorly drained and have a higher clay content than Gallion soils.

Sharkey Series

The soils of the Sharkey series are poorly drained and very slowly permeable. They formed in clayey Mississippi River alluvium. These soils are on the alluvial plain adjacent to the Bayou Teche and Catahoula Coulee natural levees in the western part of the parish.

Most of the acreage is in crops and woodland. A small acreage is in pasture.

Typical pedon of Sharkey clay, 4.5 miles east of Arnaudville, 0.65 mile southeast of State Highway 737, 0.45 mile east of field road, 800 feet west of drain, Spanish Land Grant Section 48, T. 7 S., R. 6 E.

Ap—0 to 5 inches; dark gray (10YR 4/1) clay; weak coarse subangular blocky structure; firm; many fine roots along surfaces of peds; few fine pores; few fine brown soft bodies; slightly acid; clear wavy boundary.

B1g—5 to 15 inches; dark gray (10YR 4/1) clay; common fine distinct dark yellowish brown mottles; moderate medium subangular blocky structure; firm; few fine roots along surface of peds; few fine pores; few fine brown soft bodies; slightly acid; gradual wavy boundary.

B2g—15 to 25 inches; dark gray (N 4/0) clay; few medium distinct olive brown (2.5Y 4/4) mottles; moderate medium subangular blocky structure; firm; few fine roots along surface of peds; few fine pores; few fine brown soft bodies; few shiny ped faces; moderately alkaline; clear irregular boundary.

B3g—25 to 52 inches; gray (5Y 5/1) clay; common medium distinct light olive brown (2.5Y 5/4) mottles; moderate medium subangular blocky structure that parts to moderate fine angular blocky; firm; few fine brown soft bodies; few slickensides that do not intersect; moderately alkaline; abrupt wavy boundary.

IICg—52 to 70 inches; gray (10YR 5/1) silty clay loam; common medium distinct yellowish brown (10YR 5/6) mottles; massive; friable; moderately alkaline.

The A horizon is dark gray, very dark gray, or very dark grayish brown clay or silty clay 4 to 9 inches thick. It is slightly acid through neutral.

The B2 horizon is dark gray, gray, or olive gray. It is slightly acid through moderately alkaline.

The C horizon is clay, silty clay, silty clay loam, or silt loam, and it has the same color range as the B2 horizon. It is mildly alkaline or moderately alkaline.

The Sharkey soils are associated with Dundee, Baldwin, Iberia, and Fausse soils. Sharkey soils have a higher clay content than Dundee or Baldwin soils. They have thinner very dark surface layers than Iberia soils. They dry and crack deeper than Fausse soils.

Classification

The system of soil classification currently used was adopted by the National Cooperative Soil Survey in 1965. Readers interested in further details about the system should refer to the latest literature available (*13*).

The system of classification has six categories. Beginning with the broadest, these categories are order, suborder, great group, subgroup, family, and series. In this system the bases for classification are the different

soil properties that can be observed in the field or those that can be inferred either from other properties that are observed or from the combined data of soil science and other disciplines. The properties selected for the higher categories are the result of soil genesis or of factors that affect soil genesis. In table 15 the soils of the survey area are classified according to the system. Classes of the system are briefly discussed in the following paragraphs.

ORDER. Ten soil orders are recognized. The properties used to differentiate among orders are those that reflect the kind and degree of dominant soil-forming processes that have taken place. Each order is identified by a word ending in *sol*. An example is Entisol.

SUBORDER. Each order is divided into suborders based primarily on properties that influence soil genesis and that are important to plant growth or that were selected to reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Aquent (*Aqu*, meaning water, plus *ent*, from Entisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of expression of pedogenic horizons; soil moisture and temperature regimes; and base status. The name of a great group ends with the name of a suborder. A prefix added to the name suggests something about the properties of the soil. An example is Haplaquents (*Hapl*, meaning simple horizons, plus *aquent*, the suborder of Entisols that have an aquic moisture regime).

SUBGROUP. Each great group is divided into three subgroups: the central (typic) concept of the great groups, which is not necessarily the most extensive subgroup; the intergrades, or transitional forms to other orders, suborders, or great groups; and the extragrades that have some properties that are representative of the great groups but do not indicate transitions to any other known kind of soil. The names of subgroups are derived by placing one or more adjectives before the name of the great group. The adjective *Typic* is used for the subgroup that is thought to typify the great group. An example is Typic Haplaquents.

FAMILY. Families are established within a subgroup on the basis of similar physical and chemical properties that affect management. Among the properties considered in horizons of major biological activity below plow depth are particle-size distribution, mineral content, temperature regime, thickness of the soil penetrable by roots, consistence, moisture equivalent, soil slope, and permanent cracks. A family name consists of the name of a subgroup and a series of adjectives. The adjectives are the class names for the soil properties used as family differentiae. An example is fine-loamy, mixed, nonacid, mesic, Typic Haplaquents.

SERIES. The series consists of a group of soils that are formed from a particular kind of parent material and have horizons that, except for texture of the surface soil, are similar in differentiating characteristics and in arrangement in the soil profile. Among these characteristics are color, texture, structure, reaction, consistence, and mineralogical and chemical composition.

Formation of the Soils

This section discusses the factors of soil formation and how these factors have affected the soils in St. Martin Parish.

Soil is the product of the interaction of climate, living organisms (especially vegetation), parent material, and relief over a period of time. Each of these factors modifies the effect of the other four. Significant differences in one of the factors result in differences in soil characteristics.

Climate and vegetation are the active forces in soil formation. Relief, mainly by its influence on drainage, modifies the effects of time, climate, and living organisms. The parent material also affects the kind of profile that can be formed and, in extreme cases, determines it almost entirely. Finally, time is needed for the other factors to change parent material into soil.

Climate

St. Martin Parish has a subtropical humid climate, which is characteristic of areas near the Gulf of Mexico. The warm moist climate has promoted rapid soil development. Climate is uniform throughout the parish, although its effect is slightly modified by local relief. The minor climatic differences within the parish are not considered significant enough to create soil differences. Detailed information about climate is given in the section "Introduction."

Living Organisms

Living organisms, including plants, bacteria, fungi, and animals are important in the formation of soils. Among the chemical and physical changes they cause are gains in content of organic matter and nitrogen, gains or losses in content of plant nutrients, and changes in structure and porosity. Plant roots force openings into the soil and modify porosity. As they grow, they break up and rearrange the soil particles. Plants transfer nutrients from the subsoil to the surface layers and, when they die, supply humus to the soils. Bacteria decompose organic matter and help to improve the physical condition of the soil. Animals such as crawfish and earthworms also influence soil formation by mixing the soil. When animals die, they form humus, which is a source of nutrients.

Man's activities such as cultivation, fertilization, channel construction, harvesting, burning, draining, diking, and land grading and smoothing affect the living organisms of the soil.

Most soils of the parish formed under forest vegetation. Grass vegetation affected the formation of some soils. The black surface layer of Iberia and Loreauville soils is attributed to grass vegetation.

Organic matter has accumulated to form an A1 horizon in most of the soils in the parish. Iberia and Loreauville soils, which formed under grass vegetation, have a very dark colored surface horizon that contains moderate amounts of organic matter even after many years of cultivation. Gallion soils have a lighter colored surface horizon and less organic matter. They formed under forest vegetation.

Parent Material

Parent material is the unconsolidated mass from which soils form. It determines the chemical and mineralogical composition of the soils. It also influences the degree of leaching, the reaction, texture, permeability, drainage, and kind and color of the surface and subsoil layers. Textural differences in parent material are accompanied by differences in chemical and mineralogical composition. In general, soils that form in silty and sandy parent materials have a lower capacity to hold nutrients than those that formed in clay.

Soils of St. Martin Parish formed in alluvial and loess deposits.

The alluvium is from the Mississippi River, Red River, and Atchafalaya River. Bordering the past and present stream channels, are low ridges called natural levees. These levees are highest next to the channels and slope gradually away from it. The levees owe their shape to the loss of velocity of waters that overspread the streambanks. When the water slows, it first drops sand, then silt, and finally clay particles. Thus, the soils on the higher parts of natural levees formed in loamy material that has a moderate sand content. They are generally lighter colored, more permeable, and better drained than the soils on the lower part of the natural levees and beyond. Examples are Gallion, Dundee, Loreauville, and Convent soils. On the lower part of the natural levees and beyond them in the backswamps are the clayey sediments that dropped from slow moving or still water. Sharkey, Iberia, Baldwin, and Fausse soils formed in this type of material.

Loess is fine-grained material, mainly silt-sized particles, that was deposited by wind. These deposits are practically free of sand-sized particles and in St. Martin Parish are about 10 to 15 feet thick. The loess is on the terrace uplands. Soils that formed in loess have moderate to slow permeability. Memphis, Coteau, Calhoun, Frost, Patoutville, and Acy soils formed in this type of material.

Relief

Relief and its effects on drainage have had an important influence on the formation of the soils in the parish. For example, the Sharkey soils in the alluvial plain and the Frost soils on the terrace uplands are at a relatively low elevation and receive runoff from the higher soils. They are poorly drained and have a high water table that contributes to the development of their gray B horizon. These soils have a horizon that developed mainly through a process called gleization. The process includes reduction, solution, and transfer of iron and manganese. Gleyed horizons are present in poorly drained and very poorly drained soils.

Memphis soils are on the sloping areas of the terrace uplands. They have medium to rapid runoff and moderate permeability. They are, therefore, well drained and oxidized, which has contributed to the development of their brownish colored B horizon.

Time

The differences in the length of time that parent materials have been exposed to the active forces of soil formation are commonly reflected in the degree of development of the soil profile.

The youngest parent materials in this parish are those deposited in the Atchafalaya Basin Floodway by the Atchafalaya River. The oldest are the loess materials that blanket the terrace uplands.

The influence of time on soil formation is well illustrated by comparison of the profiles of Dundee and Convent soils. Dundee soils formed in older alluvial parent material. They have been partly leached of carbonates and other soluble salts and are strongly acid or medium acid in the A horizon and upper part of the B horizon. Colloidal clays moved downward from the A horizon to form a strongly developed B horizon of silty clay loam. Organic matter accumulated in the A horizons. In contrast, Convent soils formed in young alluvium and have not been in place long enough for a B horizon to form. Convent soils receive frequent deposits of alluvium from the Atchafalaya River. They are neutral, mildly alkaline or moderately alkaline, and contain bedding planes in all layers.

References

(1) American Association of State Highway [and Transportation] Officials. 1970. Standard specifications for highway materials and methods of sampling and testing. Ed. 10, 2 vol. illus.

(2) American Society for Testing and Materials. 1974. Methods for classification of soils for engineering purposes. ASTM Stand. D 2487-69. *In* 1974 Annual Book of ASTM Standards, Part 19, 464 pp., illus.

(3) Brupbacher, R. H., J. E. Sedberry, Jr., W. P. Bonner, W. J. Peevy, W. H. Willis. 1970. Fertility levels and lime status of soils in Louisiana. La. Agric. Exp. Stn. Bull. 644.

(4) Daniels, R. B., and K. K. Young. 1968. Loess in south central Louisiana. Southeastern Geol. vol. 9, 1: 9-19.

(5) Fisk, H. N. 1948. Geological investigation of the lower Mermentau River basin and adjacent areas in coastal Louisiana. Miss. River Comm., Vicksburg, Miss. (unpaginated)

(6) Fisk, H. N., and E. McFarlan, Jr. 1955. Late Quaternary deltaic deposits of the Mississippi River. Geol. Soc. Am. Spec. Paper 62, pp. 279-302.

(7) Frazier, D. E. 1967. Recent deltaic deposits of the Mississippi River: their development and chronology. Trans., Gulf Coast Assoc. Geol. Soc., vol. 17, pp. 287-315.

(8) Howe, H. V., and C. K. Moresi. 1933. Geology of Lafayette and St. Martin Parishes. La. Dep. Conserv. Geol. Bull. No. 1, 238 pp.

(9) Kupfer, D. H. 1970. Mechanism of intrusion of Gulf Coast salt. Geosci. Repr. Ser. 70-10, La. State Univ., Baton Rouge, La. 66 pp.
(10) United States Department of Agriculture. 1919. Soil survey of St. Martin Parish, Louisiana. 32 pp., illus.
(11) United States Department of Agriculture. 1951. Soil survey manual. U.S. Dep. Agric. Handb. 18, 503 pp., illus. [Supplements replacing pp. 173-188 issued May 1962]
(12) United States Department of Agriculture. 1972. Culture of sugarcane for sugar production in the Mississippi delta. U. S. Dep. Agric. Handb. 417, 43 pp., illus.
(13) United States Department of Agriculture, Soil Conservation Service. Soil taxonomy: a basic system of soil classification for making and interpreting soil surveys. U.S. Dep. Agric. Handb. 436. [In press]

Glossary

Alluvial plain. A level or gently sloping tract or a slightly undulating land surface produced by extensive deposition of alluvium, usually adjacent to a river that periodically overflows its banks; it may be on a flood plain.

Alluvium. Material, such as sand, silt, or clay, deposited on land by streams.

Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coat, clay skin.

Concretions. Grains, pellets, or nodules of various sizes, shapes, and colors consisting of concentrated compounds or cemented soil grains. The composition of most concretions is unlike that of the surrounding soil. Calcium carbonate and iron oxide are common compounds in concretions.

Consistence, soil. The feel of the soil and the ease with which a lump can be crushed by the fingers. Terms commonly used to describe consistence are—

Loose.—Noncoherent when dry or moist; does not hold together in a mass.

Friable.—When moist, crushes easily under gentle pressure between thumb and forefinger and can be pressed together into a lump.

Firm.—When moist, crushes under moderate pressure between thumb and forefinger, but resistance is distinctly noticeable.

Plastic.—When wet, readily deformed by moderate pressure but can be pressed into a lump; will form a "wire" when rolled between thumb and forefinger.

Sticky.—When wet, adheres to other material and tends to stretch somewhat and pull apart rather than to pull free from other material.

Hard.—When dry, moderately resistant to pressure; can be broken with difficulty between thumb and forefinger.

Soft.—When dry, breaks into powder or individual grains under very slight pressure.

Cemented.—Hard; little affected by moistening.

Contour stripcropping (or contour farming). Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.

Crawfish farming. The commercial production of crawfish in managed ponds. The ponds are generally of 3 types: rice fields, open ponds, and wooded or swamp ponds.

Deepwater crawfish. The wild crawfish (Procambarus clarki and Procambarus blandingi acutus) that come from the Atchafalaya Basin.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

Floodways. A large-capacity channel constructed to divert floodwaters or excess streamflow from populous or damageable areas, such as a bypass route marked out by levees.

Fragipan. A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. The major horizons of mineral soil are as follows:

O horizon.—An organic layer, fresh and decaying plant residue, at the surface of a mineral soil.

A horizon.—The mineral horizon, formed or forming at or near the surface, in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon most of which was originally part of a B horizon.

A2 horizon.—A mineral horizon, mainly a residual concentration of sand and silt high in content of resistant minerals as a result of the loss of silicate clay, iron, aluminum, or a combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of change from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics caused (1) by accumulation of clay, sesquioxides, humus, or a combination of these; (2) by prismatic or blocky structure; (3) by redder or browner colors than those in the A horizon; or (4) by a combination of these. The combined A and B horizons are generally called the solum, or true soil. If a soil lacks a B horizon, the A horizon alone is the solum.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the A or B horizon. The material of a C horizon may be either like or unlike that from which the solum is presumed to have formed. If the material is known to differ from that in the solum the Roman numeral II precedes the letter C.

R layer.—Consolidated rock beneath the soil. The rock commonly underlies a C horizon, but can be directly below an A or a B horizon.

Levee. (Eng.) An artificial embankment, usually of random earth fill, built along the bank of a watercourse or an arm of the sea and designed to protect land from inundation or to confine streamflow to its channel.

Loess. Fine grained material, dominantly of silt-sized particles, deposited by wind.

Natural levee. A long road, low ridge, or embankment of sand and coarse silt, built by a stream on its flood plain and along both banks of its channel, especially in time of flood when water overflowing the normal banks is forced to deposit the coarsest part of its load.

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Pedon. The smallest volume that can be called "a soil." A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Permeability. The quality that enables the soil to transmit water or air, measured as the number of inches per hour that water moves through the soil. Terms describing permeability are *very slow* (less than 0.06 inch), *slow* (0.06 to 0.20 inch), *moderately slow* (0.2 to 0.6 inch), *moderate* (0.6 to 2.0 inches), *moderately rapid* (2.0 to 6.0 inches), *rapid* (6.0 to 20 inches), and *very rapid* (more than 20 inches).

pH value. (See Reaction, soil). A numerical designation of acidity and alkalinity in soil.

Reaction, soil. The degree of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degree of acidity or alkalinity is expressed as—

	pH
Extremely acid	Below 4.5
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Medium acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Mildly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Relief. The elevations or inequalities of a land surface, considered collectively.

Salt dome. A structure resulting from the upward movement of a salt mass, and with which oil and gas fields are often associated. In the Gulf States, it ia a roughly circular plug, narrow in diameter, but as much as several thousand feet deep.

Slickensides. Polished and grooved surfaces produced by one mass sliding past another. In soils, slickensides may occur at the bases of slip surfaces on the steeper slopes; on faces of blocks, prisms, and columns; and in swelling clayey soils, where there is marked change in moisture content.

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in mature soil consists of the A and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the underlying material. The living roots and other plant and animal life characteristics of the soil are largely confined to the solum.

Stripcropping. Growing crops in a systematic arrangement of strips or bands which provide vegetative barriers to wind and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates that are separated from adjoining aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grained* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Tilling a soil below normal plow depth, ordinarily to shatter a hardpan or claypan.

Terrace. An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that it can soak into the soil or flow slowly to a prepared outlet without harm. A terrace in a field is generally built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.

Terrace (geologic). An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea. A stream terrace is frequently called a second bottom, in contrast with a flood plain, and is seldom subject to overflow. A marine terrace, generally wide, was deposited by the sea.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand*, *loamy sand*, *sandy loam*, *loam*, *silt*, *silt loam*, *sandy clay loam*, *clay loam*, *silty clay loam*, *sandy clay*, *silty clay*, and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."

Tilth, soil. The condition of the soil, especially the soil structure, as related to the growth of plants. Good tilth refers to the friable state and is associated with high noncapillary porosity and stable structure. A soil in poor tilth is nonfriable, hard, nonaggregated, and difficult to till.

Upland (geology). Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

ILLUSTRATIONS

Figure 1.—Harvesting crawfish on a farm on Baldwin silty clay loam.

Figure 2.—Mississippi River alluvial plain in foreground and Prairie Terrace (Terrace Uplands) in background.

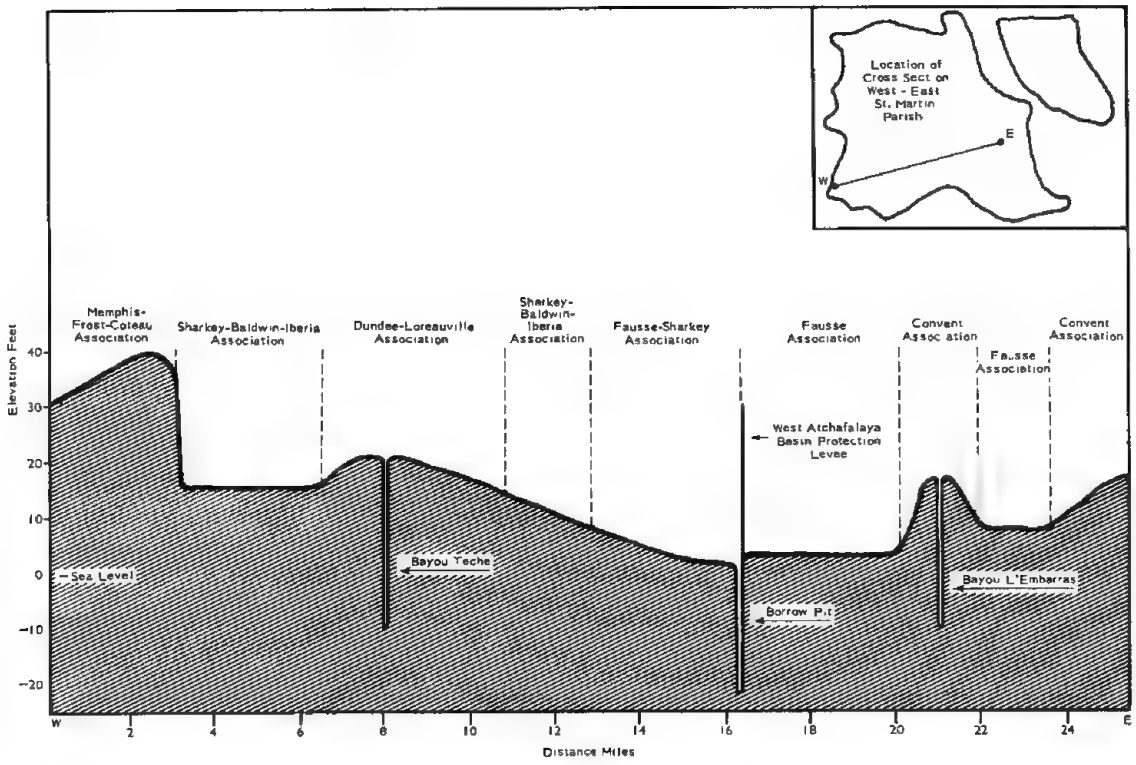


Figure 3.—Relationship of soil associations to elevation.

Figure 4.—Plantation home on Dundee silt loam.

Figure 5.—Baldcypress and buttonbush on Fausse soils.

Figure 6.—Sugarcane ready for harvest on Dundee silt loam.

Figure 7.—Typical landscape and vegetation on Fausse soils.

Figure 8.—Typical landscape of Memphis-Frost complex, gently undulating.

Figure 9.—Deepwater crawfish taken on Fausse soils in Atchafalaya Floodway.

TABLES

TABLE 1.— TEMPERATURE AND PRECIPITATION

[Based on 30 years of record, 1931-1960, at Lafayette, Louisiana; no weather station in St. Martin Parish]

Month	Temperature					Precipitation			
	Average daily maximum	Average daily minimum	2 years in 10 will have at least 4 days with—		Average monthly total	One year in 10 will have—		Average days with snow cover 1.0 inch or more	Average depth of snow on days with snow cover
			Maximum temperature equal to or higher than—	Minimum temperature equal to or lower than—		Less than—	More than—		
	°F	°F	°F	°F	In	In	In		In
January	63.8	43.5	79	28	5.08	2.08	9.45	(1)	2
February	66.4	46.0	79	30	4.48	2.23	6.90	(1)	2
March	71.6	50.1	82	34	4.47	1.44	7.06	0	0
April	79.0	57.1	87	45	4.69	1.87	8.48	0	0
May	85.9	64.0	93	54	5.04	2.38	8.24	0	0
June	91.4	70.2	96	63	5.07	1.30	10.72	0	0
July	92.2	72.2	[2]97	[3]70	6.80	3.25	10.69	0	0
August	92.1	71.8	97	67	5.88	1.96	7.95	0	0
September	88.7	67.4	95	56	4.17	1.54	8.47	0	0
October	81.8	57.3	90	43	3.08	0.72	7.08	0	0
November	71.2	47.3	83	30	4.07	1.33	7.90	0	0
December	65.3	44.2	78	28	5.51	3.88	8.62	0	0
Year	79.1	57.6	[4]99	[5]22	58.34	43.92	69.95	(1)	(1)

[1]Less than 0.5.
[2]Actually occurs 4 years in 10.
[3]Actually occurs 6 years in 10.
[4]Average annual highest maximum.
[5]Average annual lowest minimum.

TABLE 2.--PROBABILITY OF LAST FREEZING TEMPERATURES IN SPRING AND FIRST IN FALL

[Data recorded at Lafayette, La. No weather station in St. Martin Parish]

Probability	Dates for given probability and temperature				
	24° F	28° F	32° F	36° F[1]	40° F[1]
Spring:					
1 year in 10 later than---	Feb. 14	Mar. 8	Mar. 20	Apr. 10	Apr. 20
2 years in 10 later than---	Feb. 14	Feb. 27	Mar. 12	Apr. 2	Apr. 12
5 years in 10 later than---	Jan. 13	Feb. 12	Feb. 26	Mar. 19	Mar. 28
Fall:					
1 year in 10 earlier than-	Dec. 4	Nov. 23	Nov. 7	Oct. 26	Oct. 14
2 years in 10 earlier than-	Dec. 19	Dec. 1	Nov. 13	Nov. 1	Oct. 20
5 years in 10 earlier than-	(2)	Dec. 17	Nov. 27	Nov. 12	Oct. 31

[1]Frost can form on vegetation, under a clear sky and in calm air at night, when the temperature registered on a thermometer 5 feet above ground in a shelter is above 32°. For this reason, and because low temperatures - even those above freezing - can adversely affect vegetation or seeds in beds, probabilities for 36° and 40° temperature threshholds are included in the table. These data are based on 30 years of record from 1921 to 1950. The data have been adjusted, where necessary, to account for years without temperature as low as the indicated threshhold.

[2]Occurs less frequently than 5 years in 10.

TABLE 3.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Map symbol	Soil name	Acres	Percent
Ac	Acy silt loam	1,207	0.2
Ba	Baldwin silty clay loam	32,406	6.7
Ca	Calhoun silt loam	274	0.1
CB	Convent association, occasionally flooded	19,258	4.0
CH	Convent-Hydraquents association	17,493	3.6
CO	Convent soils, frequently flooded	51,731	10.7
Cu	Coteau silt loam	743	0.2
Cx	Coteau-Frost complex, gently undulating	2,161	0.4
Dd	Dundee silt loam	25,847	5.3
De	Dundee-Sharkey complex, gently undulating	6,318	1.3
FA	Fausse association	26,241	5.4
FS	Fausse soils	172,941	35.8
Ft	Frost silt loam, occasionally flooded	379	0.1
Ga	Gallion silt loam	787	0.2
Gp	Gallion-Perry complex, gently undulating	6,709	1.4
Ib	Iberia silty clay	23,881	4.9
Lo	Loreauville silt loam	22,519	4.7
Me	Memphis silt loam, 1 to 3 percent slopes	715	0.1
Mh	Memphis silt loam, 5 to 8 percent slopes	1,996	0.4
Mp	Memphis-Frost complex, gently undulating	3,869	0.8
Pt	Patoutville silt loam	928	0.2
Sh	Sharkey clay	33,215	6.9
Sk	Sharkey clay, frequently flooded	23,949	5.0
	Small water areas	7,737	1.6
	Total land area [1]	483,304	100.0
	Large water areas	38,921	
	Total area	522,225	

[1] From Louisiana Conservation Needs Inventory - 1969.

TABLE 4.--YIELDS PER ACRE OF CROPS AND PASTURE PLANTS

[All yields were estimated for a high level of management in 1973. Absence of a yield figure indicates the crop is seldom grown or is not suited to the soil]

Soil name and map symbol	Cotton lint	Rice	Sugarcane	Soybeans	Sweet potatoes	Corn	Common bermuda-grass
	Lb	Bu	Ton	Bu	Bu	Bu	AUM[1]
Acy:							
Ac	650	105	30	35	---	---	7.0
Baldwin:							
Ba	600	120	30	33	---	---	7.0
Calhoun:							
Ca	400	110	25	25	225	---	5.5
Convent:							
CB	---	---	---	25	---	---	7.5
[2]CH:							
Convent part	---	---	---	---	---	---	---
Hydraquents part	---	---	---	---	---	---	---
CO	---	---	---	---	---	---	6.5
Coteau:							
Cu	500	110	28	30	250	60	6.0
[2]Cx:							
Coteau part	450	---	27	30	225	---	6.5
Frost part	400	---	25	25	200	---	5.5
Dundee:							
Dd	700	---	32	37	---	80	6.5
[2]De:							
Dundee part	625	---	30	35	---	---	6.5
Sharkey part	525	---	26	35	---	---	6.5
Fausse:							
FA, FS	---	---	---	---	---	---	---
Frost:							
Ft	---	---	---	25	---	---	5.5
Gallion:							
Ga	750	---	30	37	---	80	7.0
[2]Gp:							
Gallion part	650	---	28	35	---	---	7.0
Perry part	475	---	23	28	---	---	6.0
Iberia:							
Ib	---	120	26	37	---	---	6.5
Loreauville:							
Lo	800	110	32	40	---	85	7.5
Memphis:							
Me	675	---	30	35	275	80	7.0
Mh	---	---	25	30	---	---	7.0
[2]Mp:							
Memphis part	---	---	28	30	---	---	7.0
Frost part	---	---	25	25	---	---	5.5

See footnotes at end of table.

TABLE 4.--YIELDS PER ACRE OF CROPS AND PASTURE PLANTS--Continued

Soil name and map symbol	Cotton lint	Rice	Sugarcane	Soybeans	Sweet potatoes	Corn	Common bermudagrass
	Lb	Bu	Ton	Bu	Bu	Bu	AUM[1]
Patoutville:							
Pt	550	110	27	30	250	---	6.0
Sharkey:							
Sh	---	120	28	37	---	---	6.5
Sk	---	---	---	---	---	---	5.0

[1]Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for a period of 30 days.

[2]This mapping unit is made up of two or more dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 5.--WOODLAND MANAGEMENT AND PRODUCTIVITY

[Only the soils suitable for production of commercial trees are listed in this table. Absence of an entry in a column means the information was not available]

Soil name and map symbol	Suitability group	Management concerns: Erosion hazard	Management concerns: Equipment limitation	Management concerns: Seedling mortality	Potential productivity: Important trees	Potential productivity: Site index	Trees to plant
Acy:							
Ac	2w	Slight	Moderate	Slight	Green ash	80	Eastern cottonwood.
					Eastern cottonwood	120	
					Water oak	---	
					Pecan	---	
					American sycamore	---	
					Cherrybark oak	90	
Baldwin:							
Ba	2w	Slight	Severe	Moderate	Green ash	80	Eastern cottonwood, American sycamore.
					Eastern cottonwood	100	
					Water oak	90	
					Pecan	---	
					Sweetgum	90	
					American sycamore	---	
Calhoun:							
Ca	2w	Slight	Severe	Moderate	Cherrybark oak	---	Loblolly pine. slash pine.
					Water oak	---	
					Loblolly pine	90	
					Slash pine	90	
					Sweetgum	---	
Convent:							
CB, CO	1w	Slight	Moderate	Slight	Green ash	80	Eastern cottonwood, American sycamore.
					Eastern cottonwood	120	
					Sweetgum	110	
					American sycamore	---	
					Water oak	---	
					Baldcypress	---	
					Black willow	---	
					Sugarberry	---	
[1]CH:							
Convent part	1w	Slight	Moderate	Slight	Black willow	---	Eastern cottonwood, American sycamore.
Hydraquents part	4w	Slight	Severe	Severe	Black willow	---	
Coteau:							
Cu	1w	Slight	Moderate	Slight	Loblolly pine	100	Loblolly pine, slash pine.
					Slash pine	---	
					Water oak	90	
					Cherry bark oak	90	
[1]Cx:							
Coteau part	1w	Slight	Moderate	Slight	Loblolly pine	100	Loblolly pine, slash pine.
					Slash pine	---	
					Water oak	90	
					Cherrybark oak	90	
Frost part	2w	Slight	Severe	Moderate	Cherrybark oak	---	Loblolly pine, slash pine.
					Water oak	---	
					Loblolly pine	90	
					Slash pine	90	
					Sweetgum	---	
Dundee:							
Dd	2w	Slight	Moderate	Slight	Cherrybark oak	105	American sycamore, eastern cottonwood.
					Eastern cottonwood	100	
					Sweetgum	100	
					Water oak	95	

See footnotes at end of table.

TABLE 5.—WOODLAND MANAGEMENT AND PRODUCTIVITY—Continued

Soil name and map symbol	Suitability group	Management concerns: Erosion hazard	Management concerns: Equipment limitation	Management concerns: Seedling mortality	Potential productivity: Important trees	Potential productivity: Site index	Trees to plant
Dundee:							
[1]De:							
Dundee part	2w	Slight	Moderate	Slight	Cherrybark oak	105	American sycamore, eastern cottonwood.
					Eastern cottonwood	100	
					Sweetgum	100	
					Water oak	95	
Sharkey part	2w	Slight	Severe	Moderate	Green ash	85	Eastern cottonwood, American sycamore.
					Eastern cottonwood	100	
					Cherrybark oak	90	
					Sweetgum	90	
					Water oak	---	
					Pecan	---	
					Black willow	---	
					Pumpkin ash	---	
Fausse:							
FA, FS	3w	Slight	Severe	Severe	Green ash	70	
					Baldcypress	---	
					Water hickory	---	
					Water tupelo	---	
					Sugarberry	---	
Frost:							
Ft	2w	Slight	Severe	Moderate	Cherrybark oak	---	Loblolly pine, slash pine.
					Water oak	---	
					Loblolly pine	90	
					Slash pine	90	
					Sweetgum	---	
Gallion:							
Ga	2o	Slight	Slight	Slight	Green ash	80	Eastern cottonwood, American sycamore.
					Cherrybark oak	95	
					Sweetgum	83	
					Water oak	---	
					Pecan	---	
					American sycamore	---	
					Eastern cottonwood	100	
[1]Gp:							
Gallion part	2o	Slight	Slight	Slight	Green ash	80	Eastern cottonwood, American sycamore.
					Cherrybark oak	95	
					Sweetgum	83	
					Water oak	---	
					Pecan	---	
					American sycamore	---	
					Eastern cottonwood	100	
Perry part	2w	Slight	Severe	Moderate	Cherrybark oak	---	Eastern cottonwood.
					Eastern cottonwood	90	
					Green ash	72	
					Sweetgum	92	
					Water oak	---	
					Pecan	---	
					Water hickory	---	
Iberia:							
Ib	3w	Slight	Severe	Severe	Green ash	80	Eastern cottonwood.
					Eastern cottonwood	95	
					Sweetgum	90	

See footnotes at end of table.

TABLE 5.—WOODLAND MANAGEMENT AND PRODUCTIVITY—Continued

Soil name and map symbol	Suitability group	Management concerns			Potential productivity		Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Important trees	Site index	
Loreauville:							
Lo	1w	Slight	Moderate	Slight	Green ash	80	Eastern cottonwood, American sycamore.
					Eastern cottonwood	120	
					Water oak	---	
					Pecan	---	
					American sycamore	---	
					Cherrybark oak	90	
Memphis:							
Me, Mh	1o	Slight	Slight	Slight	Cherrybark oak	100	Loblolly pine, slash pine.
					Loblolly pine	105	
					Sweetgum	90	
					Water oak	90	
					Slash pine	105	
[1]Mp:							
Memphis part	1o	Slight	Slight	Slight	Cherrybark oak	100	Loblolly pine, slash pine.
					Loblolly pine	105	
					Sweetgum	90	
					Water oak	90	
					Slash pine	105	
Frost part	2w	Slight	Severe	Moderate	Cherrybark oak	---	Loblolly pine, slash pine.
					Water oak	---	
					Loblolly pine	90	
					Sweetgum	---	
					Slash pine	90	
Patoutville:							
Pt	1w	Slight	Moderate	Slight	Loblolly pine	99	Loblolly pine, slash pine.
					Sweetgum	86	
					Water oak	---	
					Cherrybark oak	93	
					Slash pine	99	
Sharkey:							
Sh	2w	Slight	Severe	Moderate	Green ash	85	Eastern cottonwood, American sycamore, sweetgum.
					Eastern cottonwood	100	
					Cherrybark oak	90	
					Sweetgum	90	
					Water oak	---	
					Pecan	---	
					American sycamore	---	
Sk	3w	Slight	Severe	Severe	Green ash	70	Eastern cottonwood, American sycamore.
					Sweetgum	80	
					Water oak	80	
					Water hickory	---	
					Sugarberry	---	
					Pumpkin ash	---	
					Black willow	---	

[1]This mapping unit is made up of two or more dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 6.--BUILDING SITE DEVELOPMENT

[See text for definitions of "slight," "moderate," and "severe"]

Soil name and map symbol	Shallow excavations	Dwellings without basements	Small commercial buildings	Local roads and streets
Acy:				
Ac	Severe: wetness.	Moderate: wetness, shrink-swell, low strength.	Moderate: wetness, shrink-swell, low strength.	Severe: low strength.
Baldwin:				
Ba	Severe: wetness, too clayey.	Severe: wetness, low strength, shrink-swell.	Severe: wetness, low strength, shrink-swell.	Severe: wetness, low strength, shrink-swell.
Calhoun:				
Ca	Severe: wetness, cutbanks cave.	Severe: wetness.	Severe: wetness.	Severe: wetness.
Convent:				
CB, CO	Severe: floods, wetness.	Very severe: floods.	Severe: floods.	Severe: floods.
[1]CH:				
Convent part	Severe: floods, wetness.	Very severe: floods.	Severe: floods.	Severe: floods.
Hydraquents part	Severe: floods, wetness, cutbanks cave.	Very severe: floods, wetness, low strength.	Severe: floods, wetness, low strength.	Severe: floods, wetness, low strength.
Coteau:				
Cu	Severe: wetness.	Moderate: wetness, shrink-swell, low strength.	Moderate: wetness, shrink-swell, low strength.	Moderate: wetness, shrink-swell, low strength.
[1]Cx:				
Coteau part	Severe: wetness.	Moderate: wetness, shrink-swell, low strength.	Moderate: wetness, shrink-swell, low strength.	Moderate: wetness, shrink-swell, low strength.
Frost part	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, low strength.
Dundee:				
Dd	Severe: wetness.	Moderate: wetness, shrink-swell.	Moderate: wetness, shrink-swell.	Moderate: wetness, shrink-swell.
[1]De:				
Dundee part	Severe: wetness.	Moderate: wetness, shrink-swell.	Moderate: wetness, shrink-swell.	Moderate: wetness, shrink-swell.
Sharkey part	Severe: wetness, too clayey.	Severe: wetness, low strength, shrink-swell.	Severe: wetness, low strength, shrink-swell.	Severe: wetness, low strength, shrink-swell.

See footnotes at end of table.

TABLE 6.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Small commercial buildings	Local roads and streets
Fausse: FA, FS	Severe: floods, too clayey, wetness.	Very severe: floods, wetness, shrink-swell.	Severe: floods, wetness, shrink-swell.	Severe: floods, wetness, shrink-swell.
Frost: Ft	Severe: wetness, floods.	Very severe: floods, wetness.	Severe: floods, wetness.	Severe: wetness, low strength.
Gallion: Ga	Slight	Moderate: low strength, shrink-swell.	Moderate: low strength, shrink-swell.	Moderate: low strength, shrink-swell.
[1]Gp: Gallion part	Slight	Moderate: low strength, shrink-swell.	Moderate: low strength, shrink-swell.	Moderate: low strength, shrink-swell.
Perry part	Severe: wetness, too clayey.	Severe: wetness, shrink-swell, low strength.	Severe: wetness, shrink-swell, low strength.	Severe: wetness, shrink-swell, low strength.
Iberia: Ib	Severe: too clayey, wetness.	Severe: wetness, low strength, shrink-swell.	Severe: wetness, low strength, shrink-swell.	Severe: wetness, shrink-swell, low strength.
Loreauville: Lo	Severe: wetness.	Moderate: wetness, shrink-swell, low strength.	Moderate: wetness, shrink-swell, low strength.	Severe: low strength.
Memphis: Me	Slight	Moderate: low strength.	Moderate: low strength.	Moderate: low strength.
Mh	Slight	Moderate: low strength.	Moderate: low strength, slope.	Moderate: low strength.
[1]Mp: Memphis part	Slight	Moderate: low strength.	Moderate: low strength.	Moderate: low strength.
Frost part	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, low strength.
Patoutville: Pt	Severe: wetness.	Moderate: wetness, low strength, shrink-swell.	Moderate: wetness, low strength, shrink-swell.	Severe: low strength.
Sharkey: Sh	Severe: wetness, too clayey.	Severe: wetness, low strength, shrink-swell.	Severe: wetness, low strength, shrink-swell.	Severe: wetness, low strength, shrink-swell.
Sk	Severe: floods, wetness, too clayey.	Very severe: floods, wetness, shrink-swell.	Severe: floods, wetness, shrink-swell.	Severe: floods, wetness, shrink-swell.

[1]This mapping unit is made up of two dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 7.—SANITARY FACILITIES

[See text for definitions of "slight," "moderate," "good," "fair," and other terms used to rate soils]

Soil name and map symbol	Septic tank absorption fields	Sewage lagoons	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Acy:					
Ac	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Fair: too clayey.
Baldwin:					
Ba	Severe: wetness, percs slowly.	Slight	Severe: too clayey, wetness.	Severe: wetness.	Poor: too clayey, wetness.
Calhoun:					
Ca	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Convent:					
CB, CO	Severe: floods, wetness.	Severe: floods, wetness.	Severe: floods, wetness.	Severe: floods, wetness.	Good.
[1]CH:					
Convent part	Severe: floods, wetness.	Severe: floods, wetness.	Severe: floods, wetness.	Severe: floods, wetness.	Good.
Hydraquents part	Severe: floods, percs slowly, wetness.	Severe: floods, wetness.	Severe: floods, wetness.	Severe: floods, wetness.	Poor: wetness.
Coteau:					
Cu	Severe: percs slowly, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Fair: too clayey.
[1]Cx:					
Coteau part	Severe: percs slowly, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Fair: too clayey.
Frost part	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Dundee:					
Dd	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Fair: too clayey.
[1]De:					
Dundee part	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Fair: too clayey.
Sharkey part	Severe: wetness, percs slowly.	Slight	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, wetness.
Fausse:					
FA, FS	Severe: floods, percs slowly, wetness.	Severe: floods.	Severe: floods, wetness, too clayey.	Severe: floods, wetness.	Poor: too clayey, wetness.

See footnotes at end of table.

TABLE 7.--SANITARY FACILITIES—Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoons	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Frost: Ft	Severe: wetness, percs slowly, floods.	Severe: wetness, floods.	Severe: wetness, floods.	Severe: wetness, floods.	Poor: wetness.
Gallion: Ga	Moderate: percs slowly.	Moderate: seepage.	Moderate: too clayey.	Slight	Fair: too clayey.
[1]Gp: Gallion part	Moderate: percs slowly.	Moderate: slope, seepage.	Moderate: too clayey.	Slight	Fair: too clayey.
Perry part	Severe: percs slowly, wetness.	Slight	Severe: wetness, too clayey.	Severe: wetness.	Poor: wetness, too clayey.
Iberia: Ib	Severe: wetness, percs slowly.	Slight	Severe: too clayey, wetness.	Severe: wetness.	Poor: wetness, too clayey.
Loreauville: Lo	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Fair: too clayey.
Memphis: Me, Mh	Slight	Moderate: seepage, slope.	Slight	Slight	Fair: too clayey.
[1]Mp: Memphis part	Slight	Moderate: seepage.	Slight	Slight	Fair: too clayey.
Frost part	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Patoutville: Pt	Severe: percs slowly, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Fair: too clayey.
Sharkey: Sh	Severe: wetness, percs slowly.	Slight	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, wetness.
Sk	Severe: floods, wetness, percs slowly.	Severe: floods.	Severe: floods, wetness, too clayey.	Severe: floods, wetness.	Poor: too clayey, wetness.

[1]This mapping unit is made up of two dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 8.--CONSTRUCTION MATERIALS

[See text for definitions of "good," "fair," "poor," and "unsuited]

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
Acy: Ac	Poor: low strength.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: thin layer.
Baldwin: Ba	Poor: wetness, low strength, shrink-swell.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: wetness.
Calhoun: Ca	Poor: wetness.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: wetness.
Convent: CB, CO	Fair: wetness, low strength.	Unsuited: excess fines.	Unsuited: excess fines.	Good.
[1]CH: Convent part	Fair: wetness, low strength.	Unsuited: excess fines.	Unsuited: excess fines.	Good.
Hydraquents part	Poor: wetness, low strength.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: wetness.
Coteau: Cu	Fair: low strength, shrink-swell, wetness.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: thin layer.
[1]Cx: Coteau part	Fair: low strength, shrink-swell, wetness.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: thin layer.
Frost part	Poor: wetness, low strength.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: wetness.
Dundee: Dd	Fair: wetness, shrink-swell.	Unsuited: excess fines.	Unsuited: excess fines.	Fair: thin layer.
[1]De: Dundee part	Fair: wetness, shrink-swell.	Unsuited: excess fines.	Unsuited: excess fines.	Fair: thin layer.
Sharkey part	Poor: too clayey, shrink-swell, wetness, low strength.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: wetness, too clayey.
Fausse: FA, FS	Poor: wetness, low strength, shrink-swell.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: too clayey, wetness.

See footnotes at end of table.

TABLE 8.—CONSTRUCTION MATERIALS—Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
Frost:				
Ft	Poor: wetness, low strength.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: wetness.
Gallion:				
Ga	Fair: low strength, shrink-swell.	Unsuited: excess fines.	Unsuited: excess fines.	Fair: thin layer.
[1]Gp:				
Gallion part	Fair: low strength, shrink-swell.	Unsuited: excess fines.	Unsuited: excess fines.	Fair: thin layer.
Perry part	Poor: wetness, low strength, shrink-swell.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: wetness, too clayey.
Iberia:				
Ib	Poor: low strength, shrink-swell, wetness.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: too clayey, wetness.
Loreauville:				
Lo	Poor: low strength.	Unsuited: excess fines.	Unsuited: excess fines.	Fair: thin layer.
Memphis:				
Me, Mh	Fair: low strength.	Unsuited: excess fines.	Unsuited: excess fines.	Fair: too clayey.
[1]Mp:				
Memphis part	Fair: low strength.	Unsuited: excess fines.	Unsuited: excess fines.	Fair: too clayey.
Frost part	Poor: wetness, low strength.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: wetness.
Patoutville:				
Pt	Poor: low strength.	Unsuited: excess fines.	Unsuited: excess fines.	Fair: thin layer.
Sharkey:				
Sh, Sk	Poor: too clayey, shrink-swell, wetness, low strength.	Unsuited: excess fines.	Unsuited: excess fines.	Poor: wetness, too clayey.

[1]This mapping unit is made up of two dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 9.--WATER MANAGEMENT

[See text for definitions of "slight," "moderate," and "severe"]

Soil name and map symbol	Limitations for—		Features affecting—		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Terraces and diversions	Grassed waterways
Acy:					
Ac	Moderate: seepage.	Slight	Favorable	Not needed	Favorable.
Baldwin:					
Ba	Slight	Moderate: shrink-swell, low strength, compressible.	Percs slowly	Not needed	Wetness.
Calhoun:					
Ca	Slight	Moderate: piping, erodes easily, low strength.	Percs slowly, cutbanks cave.	Not needed	Wetness.
Convent:					
CB, CO	Moderate: seepage.	Moderate: erodes easily, piping, low strength.	Floods, cutbanks cave.	Not needed	Erodes easily.
[1]CH:					
Convent part	Moderate: seepage.	Moderate: erodes easily, piping, low strength.	Floods, cutbanks cave.	Not needed	Erodes easily.
Hydraquents part	Moderate: seepage.	Slight	Floods	Not needed	Not needed.
Coteau:					
Cu	Slight	Slight	Favorable	Not needed	Favorable.
[1]Cx:					
Coteau part	Slight	Slight	Favorable	Not needed	Favorable.
Frost part	Slight	Slight	Percs slowly	Not needed	Wetness.
Dundee:					
Dd	Moderate: seepage.	Moderate: seepage, compressible, piping.	Favorable	Not needed	Favorable.
[1]De:					
Dundee part	Moderate: seepage.	Moderate: seepage, compressible, piping.	Favorable	Not needed	Favorable.
Sharkey part	Slight	Moderate: low strength, compressible, shrink-swell.	Percs slowly	Not needed	Wetness.
Fausse:					
FA, FS	Slight	Moderate: shrink-swell, compressible, low strength.	Floods, percs slowly.	Not needed	Not needed.
Frost:					
Ft	Slight	Slight	Floods, percs slowly.	Not needed	Wetness.

See footnotes at end of table.

TABLE 9.—WATER MANAGEMENT—Continued

Soil name and map symbol	Limitations for—		Features affecting—		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Terraces and diversions	Grassed waterways
Gallion:					
Ga	Moderate: seepage.	Slight	Favorable	Not needed	Favorable.
[1]Gp:					
Gallion part	Moderate: seepage.	Slight	Not needed	Not needed	Favorable.
Perry part	Slight	Moderate: shrink-swell, low strength, compressible.	Percs slowly	Not needed	Wetness.
Iberia:					
Ib	Slight	Moderate: compressible, low strength, shrink-swell.	Percs slowly	Not needed	Wetness.
Loreauville:					
Lo	Moderate: seepage.	Slight	Favorable	Not needed	Favorable.
Memphis:					
Me	Moderate: seepage.	Moderate: piping, compressible, erodes easily.	Not needed	Erodes easily, piping.	Favorable.
Mh	Moderate: seepage.	Moderate: piping, compressible, erodes easily.	Not needed	Slope, erodes easily, piping.	Slope.
[1]Mp:					
Memphis part	Moderate: seepage.	Moderate: piping, compressible, erodes easily.	Not needed	Not needed	Favorable.
Frost part	Slight	Slight	Percs slowly	Not needed	Wetness.
Patoutville:					
Pt	Slight	Slight	Percs slowly	Not needed	Favorable.
Sharkey:					
Sh	Slight	Moderate: low strength, compressible, shrink-swell.	Percs slowly	Not needed	Wetness.
Sk	Slight	Moderate: low strength, compressible, shrink-swell.	Floods, percs slowly.	Not needed	Wetness.

[1]This mapping unit is made up of two dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 10.—SOIL RATINGS FOR RECREATIONAL DEVELOPMENT

[See text for definitions of "slight," "moderate," and "severe"]

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
Acy: Ac	Moderate: wetness, percs slowly.	Moderate: wetness.	Moderate: wetness, percs slowly.	Moderate: wetness.
Baldwin: Ba	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, percs slowly.	Severe: wetness.
Calhoun: Ca	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
Convent: CB, CO	Severe: floods.	Severe: floods.	Severe: floods.	Severe: floods.
[1]CH: Convent part	Severe: floods.	Severe: floods.	Severe: floods.	Severe: floods.
Hydraquents part	Severe: floods, wetness.	Severe: floods, wetness.	Severe: floods, wetness.	Severe: floods, wetness.
Coteau: Cu	Moderate: wetness, percs slowly.	Moderate: wetness.	Moderate: percs slowly, wetness.	Moderate: wetness.
[1]Cx: Coteau part	Moderate: wetness, percs slowly.	Moderate: wetness.	Moderate: percs slowly, wetness.	Moderate: wetness.
Frost part	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
Dundee: Dd	Moderate: wetness, percs slowly.	Moderate: wetness.	Moderate: wetness, percs slowly.	Moderate: wetness.
[1]De: Dundee part	Moderate: wetness, percs slowly.	Moderate: wetness.	Moderate: wetness, percs slowly.	Moderate: wetness.
Sharkey part	Severe: too clayey, percs slowly, wetness.	Severe: too clayey, wetness.	Severe: too clayey, percs slowly, wetness.	Severe: too clayey, wetness.
Fausse: FA, FS	Severe: floods, wetness, too clayey.	Severe: floods, wetness, too clayey.	Severe: floods, wetness, too clayey.	Severe: floods, wetness, too clayey.
Frost: Ft	Severe: floods, wetness.	Severe: floods, wetness.	Severe: floods, wetness.	Severe: floods, wetness.

See footnotes at end of table.

TABLE 10.—SOIL RATINGS FOR RECREATIONAL DEVELOPMENT—Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
Gallion: Ga	Slight.	Slight.	Slight.	Slight.
[1]Gp: Gallion part	Slight.	Slight.	Moderate: slope.	Moderate: slope.
Perry part	Severe: wetness, percs slowly, too clayey.	Severe: wetness, too clayey.	Severe: wetness, percs slowly, too clayey.	Severe: wetness, too clayey.
Iberia: Ib	Severe: percs slowly, too clayey, wetness.	Severe: too clayey, wetness.	Severe: percs slowly, too clayey, wetness.	Severe: too clayey, wetness.
Loreauville: Lo	Moderate: wetness, percs slowly.	Moderate: wetness.	Moderate: wetness, percs slowly.	Moderate: wetness.
Memphis: Me	Slight.	Slight.	Moderate: slope.	Slight.
Mh	Slight.	Slight.	Severe: slope.	Slight.
[1]Mp: Memphis part	Slight.	Slight.	Slight.	Slight.
Frost part	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
Patoutville: Pt	Moderate: percs slowly, wetness.	Moderate: wetness.	Moderate: wetness, percs slowly.	Moderate: wetness.
Sharkey: Sh	Severe: too clayey, percs slowly, wetness.	Severe: too clayey, wetness.	Severe: too clayey, percs slowly, wetness.	Severe: too clayey, wetness.
Sk	Severe: floods, too clayey, percs slowly.	Severe: floods, too clayey, wetness.	Severe: floods, too clayey, percs slowly.	Severe: floods, too clayey, wetness.

[1]This mapping unit is made up of two dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 11.—NATIVE PLANTS ON SELECTED SOILS IN WETLANDS

[Common—observed growing in most areas of the soil. Uncommon—observed growing on the soil in a few places]

Soil name and map symbol	Grasses, sedges, and rushes	Forbs and forblike plants	Vines	Shrubs and shrublike plants	Trees
Convent: CB, CO.	Common: Bushy bluestem, Carex sedge, Plumegrass. Uncommon: Fall panicum, Horned beakrush.	Common: Aster, Blue verbena, Butterweed, Carolina horsenettle, Common cocklebur, Curley dock, Dog fennel, Giant ragweed, Goldenrod, Mistflower, Nettle, Pennywort, Smartweed, Thistle, Vetch. Uncommon: Avens, Beefsteak-plant, Bugleweed, Buttercup, Fern, Lythrum, Purple pluchea, Smallspike falsenettle, Spanish moss, Strawberry.	Common: Climbing hempweed, Grape, Japanese climbing fern, Peppervine, Poison-ivy, Rattan, Trumpetcreeper, Virginia creeper. Uncommon: Buckwheatvine, Carolina snailseed, Common greenbrier, Morningglory, Saw greenbrier.	Common: American elderberry, Blackberry, Carolina waxmyrtle, Dewberry, Possumhaw, Roughleaf dogwood, Southern waxmyrtle. Uncommon: Bluefruited dogwood, Dwarf palmetto, Eastern baccharis, Leadplant.	Common: American sycamore, Baldcypress, Black willow, Boxelder, Common persimmon, Drummond red maple, Eastern cottonwood, Green ash, Laurel oak, Sugarberry, Sweetgum. Uncommon: American elm, Live oak, Nuttall oak, Overcup oak.
CH: Convent part.	Common: Carex sedge. Uncommon: None.	Common: Butterweed, Common cocklebur, Giant ragweed, Smartweed. Uncommon: Carolina horsenettle, Curley dock, Fern.	Common: None. Uncommon: Buckwheatvine, Carolina snailseed, Climbing hempweed, Poison-ivy, Rattan.	Common: None. Uncommon: American elderberry.	Common: Black willow. Uncommon: American sycamore, Baldcypress, Eastern cottonwood, Green ash.
Hydraquents part.	Common: Carex sedge. Uncommon: None.	Common: Alligatorweed, Duckweed, Smartweed, Water hyacinth. Uncommon: Butterweed.	Common: None. Uncommon: None.	Common: Buttonbush. Uncommon: None.	Common: Black willow. Uncommon: Baldcypress, Water tupelo.

TABLE 11.—NATIVE PLANTS ON SELECTED SOILS IN WETLANDS—Continued

Soil name and map symbol	Grasses, sedges, and rushes	Forbs and forblike plants	Vines	Shrubs and shrublike plants	Trees
Fausse: FA.	Common: Carex sedge. Uncommon: Fall panicum, Plumegrass.	Common: Alligatorweed, Duckweed, Smartweed, Spanish-moss, Water hyacinth. Uncommon: Butterweed, Giant ragweed, Purple pluchea.	Common: None. Uncommon: Buckwheatvine, Poison-ivy, Rattan.	Common: Buttonbush. Uncommon: Bluefruited dogwood, Eastern baccharis, Hawthorn, Leadplant, Roughleaf dogwood, Swampprivet.	Common: Baldcypress, Black willow, Green ash, Honeylocust, Pumpkin ash, Sugarberry, Sweetgum, Water-hickory, Water tupelo. Uncommon: Common persimmon, Drummond red maple, Nuttall oak, Water-elm,
FS.	Common: Fall panicum. Uncommon: None.	Common: Alligatorweed, Common cocklebur, Duckweed, Smartweed, Spanish-moss, Water hyacinth. Uncommon: Butterweed, Giant ragweed, Purple pluchea.	Common: None. Uncommon: Buckwheatvine, Climbing hempweed, Poison-ivy, Rattan.	Common: None. Uncommon: Blackberry, Bluefruited dogwood, Eastern baccharis, Hawthorne, Leadplant, Roughleaf dogwood, Swampprivet.	Common: Baldcypress, Black willow, Green ash, Pumpkin ash, Sugarberry, Water-hickory, Water tupelo. Uncommon: Common persimmon, Drummond red maple, Eastern cottonwood, Honeylocust, Nuttall oak, Water-elm, Waterlocust.
Sharkey: Sk.	Common: Bushy bluestem, Carex sedge, Horned beakrush, Plumegrass. Uncommon: Fall panicum.	Common: Blue verbena, Butterweed, Carolina horsenettle, Common cocklebur, Curley dock, Giant ragweed, Goldenrod, Pennywort, Smartweed, Spanish-moss, Thistle. Uncommon: Alligatorweed, Aster, Beefsteak-plant, Bugleweed, Buttercup, Dog fennel, Fern, Lythrum, Mistflower, Nettle, Purple pluchea, Smallspike falsenettle, Vetch, Water hyacinth.	Common: Peppervine, Poison-ivy, Rattan. Uncommon: Buckwheatvine, Carolina snailseed, Climbing hempweed, Common greenbrier, Grape, Japanese climbing fern, Morningglory, Saw greenbrier, Trumpetcreeper , Virginia creeper.	Common: Blackberry, Buttonbush, Eastern baccharis, Hawthorne, Leadplant, Roughleaf dogwood. Uncommon: American elderberry, Bluefruited dogwood, Dewberry, Dwarf palmetto, Possumhaw, Swampprivet.	Common: Baldcypress, Black willow, Common persimmon, Drummond red maple, Green ash, Honeylocust, Pumpkin ash, Sugarberry, Sweetgum, Water-hickory, Waterlocust, Water-oak. Uncommon: American elm, American sycamore, Boxelder, Eastern cottonwood, Laurel oak, Nuttall oak, Overcup oak, Water-elm, Water tupelo.

TABLE 12.—SOIL RATINGS FOR WILDLIFE HABITAT

[See text for definitions of "good," "fair," "poor," and "very poor." Absence of an entry indicates the soil was not rated]

Soil name and map symbol	Potential for habitat elements							Potential as habitat for—		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
Acy:										
Ac	Good	Good	Good	Good	---	Fair	Fair	Good	Good	Fair.
Baldwin:										
Ba	Fair	Fair	Fair	Good	---	Good	Good	Fair	Good	Good.
Calhoun:										
Ca	Poor	Fair	Fair	Good	---	Good	Good	Fair	Fair	Good.
Convent:										
CB	Fair	Good	Good	Good	---	Fair	Fair	Good	Good	Fair.
[1]CH:										
Convent part	Poor	Fair	Fair	Good	---	Fair	Fair	Fair	Good	Fair.
Hydraquents part	Very poor.	Poor	Poor	Very poor.	---	Good	Good	Very poor.	Very poor.	Good.
CO	Poor	Fair	Fair	Good	---	Fair	Fair	Fair	Good	Fair.
Coteau:										
Cu	Fair	Good	Good	Good	---	Fair	Fair	Good	Good	Fair.
[1]Cx:										
Coteau part	Fair	Good	Good	Good	---	Fair	Fair	Good	Good	Fair.
Frost part	Poor	Fair	Fair	Good	---	Good	Good	Fair	Good	Good.
Dundee:										
Dd	Fair	Good	Good	Good	---	Fair	Fair	Good	Good	Fair
[1]De:										
Dundee part	Fair	Good	Good	Good	---	Fair	Fair	Good	Good	Fair
Sharkey part	Fair	Fair	Fair	Good	---	Good	Good	Fair	Good	Good.
Fausse:										
FA, FS	Very poor.	Very poor.	Very poor.	Poor	---	Good	Good	Very poor.	Poor	Good.
Frost:										
Ft	Poor	Fair	Fair	Good	---	Good	Good	Fair	Good	Good.
Gallion:										
Ga	Good	Good	Good	Good	---	Poor	Very poor.	Good	Good	Very poor.
[1]Gp:										
Gallion part	Good	Good	Good	Good	---	Poor	Very poor.	Good	Good	Very poor.
Perry part	Fair	Fair	Fair	Good	---	Good	Good	Fair	Good	Good.
Iberia:										
Ib	Fair	Fair	Fair	Good	---	Good	Good	Fair	Good	Good.
Loreauville:										
Lo	Good	Good	Good	Good	---	Fair	Fair	Good	Good	Fair.
Memphis:										
Me	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
Mh	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.

See footnotes at end of table.

TABLE 12.—SOIL RATINGS FOR WILDLIFE HABITAT—Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for—		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
Memphis:										
[1]Mp:										
Memphis part	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
Frost part	Poor	Fair	Fair	Good	---	Good	Good	Fair	Good	Good.
Patoutville:										
Pt	Good	Good	Good	---	Good	Fair	Fair	Good	Good	Fair.
Sharkey:										
Sh	Fair	Fair	Fair	Good	---	Good	Good	Fair	Good	Good.
Sk	Poor	Fair	Fair	Good	---	Fair	Fair	Poor	Fair	Fair.

[1]This mapping unit is made up of two dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 13.--ENGINEERING PROPERTIES AND CLASSIFICATIONS

[The symbol < means less than; > means greater than]

Soil name and map symbol	Depth	USDA texture	Classification		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	4	10	40	200		
	In								Pct	
Acy:										
Ac	0-6	Silt loam	ML, CL-ML	A-4	100	100	100	90-100	<27	[1]NP-7
	6-24	Silty clay loam	CL	A-6, A-7-6	95-100	90-100	85-100	75-100	31-45	11-22
	24-75	Silt loam	CL, CL-ML	A-4, A-6	95-100	90-100	85-100	75-100	20-36	5-15
Baldwin:										
Ba	0-6	Silty clay loam	CL, CH	A-7-6, A-6	100	100	100	95-100	35-55	15-28
	6-20	Clay, silty clay	CH	A-7-6	95-100	95-100	95-100	90-100	51-75	25-45
	20-60	Silty clay, silty clay loam	CH, CL	A-7-6, A-6	95-100	95-100	95-100	90-100	35-65	15-35
Calhoun:										
Ca	0-13	Silt loam	CL-ML, ML, CL	A-4	100	100	100	95-100	<31	NP-10
	13-57	Silty clay loam, silt loam.	CL	A-6	100	100	100	95-100	32-40	12-18
	57-70	Silt loam	CL, CL-ML	A-6, A-4	100	100	100	95-100	26-35	5-15
Convent:										
CB	0-52	Very fine sandy loam, silt loam.	ML, CL-ML	A-4	100	100	95-100	85-100	<27	NP-7
	52-60	Loamy very fine sand, silt loam, silty clay loam, silty clay, clay.	ML, CL, CL-ML, CH	A-4, A-6, A-7-6	100	100	95-100	65-100	<85	NP-50
CO	0-40	Very fine sandy loam, silt loam	ML, CL-ML	A-4	100	100	95-100	85-100	<27	NP-7
	40-60	Loamy very fine sand, very fine sandy loam, silty clay loam, silty clay, clay.	ML, CL, CL-ML, CH	A-4, A-6, A-7-6	100	100	95-100	65-100	<85	NP-50
[2]CH:										
Convent part	0-60	Very fine sandy loam.	ML	A-4	100	100	95-100	65-95	<22	NP-3
	60-75	Loamy very fine sand, silt loam, silty clay loam, silty clay, clay.	ML, CL, CL-ML, CH	A-4, A-6, A-7-6	100	100	95-100	65-100	<85	NP-50
Hydraquents part	0-60	Stratified very fine sandy loam to clay.	CL-ML, CL	A-4, A-6, A-7-6	100	100	95-100	60-100	25-48	5-24
Coteau:										
Cu	0-7	Silt loam	ML, CL-ML	A-4	100	100	100	95-100	<27	NP-7
	7-32	Silty clay loam, silt loam.	CL, ML	A-6	100	100	100	95-100	33-40	12-18
	32-96	Silt loam	CL-ML, CL, ML	A-4, A-6	100	100	100	95-100	25-37	5-15
[2]Cx:										
Coteau part	0-8	Silt loam	ML, CL-ML	A-4	100	100	100	95-100	<27	NP-7
	8-26	Silty clay loam, silt loam.	CL, ML	A-6	100	100	100	95-100	33-40	12-18
	26-70	Silt loam	CL-ML, CL, ML	A-4, A-6	100	100	100	95-100	25-37	5-15

See footnotes at end of table.

TABLE 13.—ENGINEERING PROPERTIES AND CLASSIFICATIONS—Continued

Soil name and map symbol	Depth	USDA texture	Classification		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	4	10	40	200		
	In								Pct	
Coteau:										
Frost part	0-24	Silt loam	CL-ML, CL	A-4	100	100	100	80-100	25-31	5-10
	24-70	Silty clay loam, silt loam.	CL	A-6, A-7-6	100	100	100	90-100	35-50	15-25
Dundee:										
Dd	0-7	Silt loam	ML, CL-ML,	A-4	100	100	90-100	75-98	20-27	3-7
	7-42	Silty clay loam	CL	A-6, A-7-6	100	100	90-100	80-95	35-42	15-20
	42-70	Silty clay, silty clay loam, silt loam.	CH, CL	A-7-6, A-6	100	100	90-100	95-100	30-56	10-30
Dundee:										
[2]De:										
Dundee part	0-7	Silt loam	ML, CL-ML	A-4	100	100	90-100	75-98	20-27	3-7
	7-36	Silty clay loam	CL	A-6, A-7-6	100	100	90-100	80-95	35-42	15-20
	36-70	Silty clay	CH	A-7-6,	100	100	90-100	95-100	30-56	10-30
Sharkey part	0-12	Clay, silty clay	CH, CL	A-7-6	100	100	100	95-100	46-60	22-33
	12-60	Clay	CH	A-7-6	100	100	100	95-100	56-85	30-50
Fausse:										
FA	0-14	Mucky clay, clay	CH, OH, MH	A-7-6, A-7-5	100	100	100	95-100	60-100	30-65
	14-60	Clay	CH, MH	A-7-6, A-7-5	100	100	100	95-100	60-105	30-73
FS	0-16	Mucky clay, clay	CH, OH, MH	A-7-6, A-7-5	100	100	100	95-100	60-90	30-52
	16-60	Clay	CH, MH	A-7-6, A-7-5	100	100	100	95-100	60-90	30-52
Frost:										
Ft	0-24	Silt loam	CL-ML, CL	A-4	100	100	100	85-100	25-31	5-10
	24-60	Silty clay loam	CL	A-6, A-7-6	100	100	100	90-100	35-50	15-25
Gallion:										
Ga	0-8	Silt loam	ML, CL-ML	A-4	100	100	100	90-100	<27	NP-7
	8-40	Silt loam, silty clay loam.	CL	A-6	100	100	100	90-100	32-40	11-17
	40-60	Stratified silty clay loam to very fine sandy loam.	CL, CL-ML	A-6, A-4	100	100	100	90-100	23-35	4-15
[2]Gp:										
Gallion part	0-6	Silt loam	ML, CL-ML	A-4	100	100	100	90-100	<27	NP-7
	6-41	Silt loam, silty clay loam.	CL	A-6	100	100	100	90-100	32-40	11-17
	41-60	Stratified silty clay loam and silt loam.	CL, CL-ML	A-6, A-4	100	100	100	90-100	23-35	4-15
Perry part	0-5	Silty clay loam	CL	A-6, A-7-6	100	100	100	95-100	35-50	15-25
	5-60	Clay	CH	A-7-6	100	100	100	95-100	60-80	33-50
Iberia:										
Ib	0-14	Silty clay, clay	CH, CL, MH	A-7-6 A-7-5	100	100	100	95-100	45-75	22-40
	14-60	Clay, silty clay	CH	A-7-6	95-100	90-100	90-100	85-100	51-75	25-45
Loreauville:										
Lo	0-8	Silt loam	CL-ML, CL, ML	A-4	100	100	100	85-100	<31	NP-10
	8-24	Silty clay loam	CL	A-6, A-7-6	95-100	90-100	90-100	85-100	32-45	11-22
	24-62	Loam, silt loam	CL-ML, CL	A-4	95-100	90-100	90-100	85-100	23-31	4-10

See footnotes at end of table.

TABLE 13.—ENGINEERING PROPERTIES AND CLASSIFICATIONS—Continued

Soil name and map symbol	Depth	USDA texture	Classification		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	4	10	40	200		
	In								Pct	
Memphis:										
Me	0-6	Silt loam	ML, CL-ML	A-4	100	100	100	90-100	<27	NP-7
	6-40	Silty clay loam	CL	A-6, A-7-6	100	100	100	90-100	35-45	15-23
	40-60	Silt loam	ML, CL	A-4, A-6	100	100	100	90-100	30-40	6-15
Mh	0-4	Silt loam	ML, CL-ML	A-4	100	100	100	90-100	<27	NP-7
	4-17	Silty clay loam	CL	A-6,	100	100	100	90-100	35-45	15-23
	17-90	Silt loam	ML, CL	A-4, A-6	100	100	100	90-100	30-40	6-15
[2]Mp:										
Memphis part	0-7	Silt loam	ML, CL-ML	A-4	100	100	100	90-100	<27	NP-7
	7-40	Silty clay loam	CL	A-6, A-7	100	100	100	90-100	35-45	15-23
	40-60	Silt loam	ML, CL	A-4, A-6	100	100	100	90-100	30-40	6-15
Frost part	0-20	Silt loam	CL-ML, CL	A-4	100	100	100	80-100	25-31	5-10
	20-46	Silty clay loam	CL	A-6, A-7-6	100	100	100	90-100	35-50	15-25
	46-72	Silt loam	CL	A-6	100	100	100	80-100	31-40	11-20
Patoutville:										
Pt	0-7	Silt loam	ML, CL-ML	A-4	100	100	100	95-100	<28	NP-7
	7-36	Silty clay loam	CL	A-6, A-7-6	100	100	100	95-100	30-50	13-25
	36-60	Silty clay loam, silt loam.	CL	A-6	100	100	100	95-100	25-40	8-20
Sharkey:										
Sh	0-5	Clay, silty clay	CH, CL	A-7-6	100	100	100	95-100	46-85	22-50
	5-52	Clay	CH	A-7-6	100	100	100	95-100	56-85	30-50
	52-70	Clay, silty clay loam, silt loam, silty clay.	CL-ML, CL, CH	A-4, A-6, A-7-6	100	100	100	95-100	25-85	5-50
Sk	0-4	Clay, silty clay	CH, CL	A-7-6	100	100	100	95-100	46-85	22-50
	4-64	Clay	CH	A-7-6	100	100	100	95-100	56-85	30-50

[1]NP means nonplastic.

[2]This mapping unit is made up of two dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 14.--PHYSICAL AND CHEMICAL PROPERTIES OF SOILS

[Dashes indicate data were not available. The symbol < means less than; > means greater than]

Soil name and map symbol	Depth	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Risk of corrosion	
						Uncoated steel	Concrete
	In	In/hr	In/in	pH			
Acy:							
Ac	0-6	0.6-2.0	0.21-0.23	5.6-7.3	Low	High	Low.
	6-24	0.2-0.6	0.20-0.22	6.1-8.4	Moderate	High	Low.
	24-75	0.2-0.6	0.20-0.22	6.6-8.4	Low	High	Low.
Baldwin:							
Ba	0-6	.06-0.2	0.18-0.22	5.6-6.5	Moderate	High	Moderate.
	6-20	<0.06	0.17-0.20	6.1-7.8	Very high	High	Moderate.
	20-60	<0.2	0.17-0.21	6.6-8.4	High	High	Low.
Calhoun:							
Ca	0-13	0.2-0.6	0.21-0.23	5.1-6.0	Low	High	Moderate.
	13-57	0.06-0.2	0.20-0.22	4.5-5.5	Low	High	Moderate.
	57-70	0.2-0.6	0.21-0.23	5.1-6.5	Low	High	Moderate.
Convent:							
CB	0-52	0.6-2.0	0.18-0.23	6.6-8.4	Low	Moderate	Low.
	52-60	<2.0	0.12-0.23	7.4-8.4	Low to very high	Moderate	Low.
CO	0-40	0.6-2.0	0.18-0.23	6.6-8.4	Low	Moderate	Low.
	40-60	<2.0	0.15-0.23	7.4-8.4	Low to very high	Moderate	Low.
[1]CH:							
Convent part	0-60	0.6-2.0	0.15-0.20	7.4-8.4	Low	Moderate	Low.
	60-70	<2.0	0.12-0.23	7.4-8.4	Low to very high	Moderate	Low.
Hydraquents part	0-60	0.06-0.6	0.16-0.21	7.4-8.4	Moderate	Moderate	Low.
Coteau:							
Cu	0-8	0.2-0.6	0.21-0.23	5.1-6.0	Low	High	Moderate.
	7-32	0.2-0.6	0.20-0.23	5.1-6.0	Moderate	High	Moderate.
	32-96	0.2-0.6	0.20-0.23	5.1-6.5	Low	High	Moderate.
[1]Cx:							
Coteau part	0-7	0.2-0.6	0.21-0.23	5.1-6.0	Low	High	Moderate.
	7-32	0.2-0.6	0.20-0.23	5.1-6.0	Moderate	High	Moderate.
	32-96	0.2-0.6	0.20-0.23	5.1-6.5	Low	High	Moderate.
Frost part	0-24	0.2-0.6	0.21-0.23	4.5-6.0	Low	High	Moderate.
	24-72	0.06-0.2	0.20-0.22	4.5-7.3	Moderate	High	Low.
Dundee:							
Dd	0-7	0.6-2.0	0.15-0.20	5.1-6.0	Low	High	Moderate.
	7-42	0.2-0.6	0.15-0.20	5.1-6.0	Moderate	High	Moderate.
	42-70	<0.06	0.14-0.18	5.6-7.3	High	High	Moderate.
[1]De:							
Dundee part	0-7	0.6-2.0	0.15-0.20	5.1-6.0	Low	High	Moderate.
	7-36	0.2-0.6	0.15-0.20	5.1-6.0	Moderate	High	Moderate.
	36-70	<0.06	0.14-0.18	5.6-7.3	High	High	Moderate.
Sharkey part	0-12	<0.06	0.18-0.20	5.6-7.3	Very high	High	Low.
	12-60	<0.06	0.18-0.20	6.1-8.4	Very high	High	Low.
Fausse:							
FA	0-14	<0.06	0.18-0.20	5.6-7.3	Very high	High	Low.
	14-60	<0.06	0.18-0.20	6.6-8.4	Very high	High	Low.
FS	0-16	<0.06	0.18-0.20	5.6-7.3	Very high	High	Low.
	16-60	<0.06	0.18-0.20	6.6-8.4	Very high	High	Low.
Frost:							
Ft	0-24	0.2-0.6	0.21-0.23	4.5-6.0	Low	High	Moderate.
	24-60	0.06-0.2	0.20-0.22	4.5-6.5	Moderate	High	Low.

See footnotes at end of table.

TABLE 14.--PHYSICAL AND CHEMICAL PROPERTIES OF SOILS--Continued

Soil name and map symbol	Depth	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Risk of corrosion	
						Uncoated steel	Concrete
	In	In/hr	In/in	pH			
Gallion:							
Ga	0-8	0.6-2.0	0.21-0.23	5.6-7.3	Low	Low	Low.
	8-40	0.6-2.0	0.20-0.22	6.1-7.3	Moderate	Moderate	Low.
	40-60	0.6-2.0	0.20-0.23	6.1-8.4	Low	Low	Low.
[1]Gp:							
Gallion part	0-6	0.6-2.0	0.21-0.23	5.6-7.3	Low	Low	Low.
	6-41	0.6-2.0	0.20-0.22	6.1-7.3	Moderate	Moderate	Low.
	41-60	0.6-2.0	0.20-0.23	6.1-8.4	Low	Low	Low.
Perry part	0-5	0.06-0.2	0.18-0.22	5.1-6.0	High	High	Moderate.
	5-60	<0.06	0.17-0.20	6.1-8.4	Very high	High	Low.
Iberia:							
Ib	0-14	0.06-0.2	0.15-0.19	6.1-7.8	Very high	High	Low.
	14-60	<0.06	0.14-0.18	6.6-8.4	Very high	High	Low.
Loreauville:							
Lo	0-8	0.6-2.0	0.21-0.23	6.1-7.3	Low	High	Low.
	8-24	0.2-0.6	0.20-0.22	6.6-8.4	Moderate	High	Low.
	24-62	0.6-2.0	0.21-0.23	7.4-8.4	Low	High	Low.
Memphis:							
Me	0-6	0.6-2.0	0.20-0.23	4.5-6.0	Low	Low	Moderate.
	6-40	0.6-2.0	0.20-0.22	4.5-5.5	Low	Moderate	Moderate.
	40-60	0.6-2.0	0.20-0.23	5.1-6.0	Low	Low	Moderate.
Mh	0-4	0.6-2.0	0.20-0.23	4.5-6.0	Low	Low	Moderate.
	4-17	0.6-2.0	0.20-0.22	4.5-5.5	Low	Moderate	Moderate.
	17-60	0.6-2.0	0.20-0.23	5.1-6.0	Low	Low	Moderate.
[1]Mp:							
Memphis part	0-7	0.6-2.0	0.20-0.23	4.5-6.0	Low	Low	Moderate.
	7-40	0.6-2.0	0.20-0.22	4.5-5.5	Low	Moderate	Moderate.
	40-60	0.6-2.0	0.20-0.23	5.1-6.0	Low	Low	Moderate.
Frost part	0-20	0.2-0.6	0.21-0.23	4.5-5.5	Low	High	Moderate.
	20-46	0.06-0.2	0.20-0.22	4.5-6.0	Moderate	High	Moderate.
	46-72	0.6-2.0	0.20-0.23	6.1-7.3	Low	High	Low.
Patoutville:							
Pt	0-7	0.2-0.6	0.20-0.23	5.1-6.0	Low	High	Moderate.
	7-36	0.06-0.2	0.20-0.22	6.1-7.3	Moderate	High	Moderate.
	36-60	0.06-0.6	0.20-0.22	6.1-7.3	Moderate	High	Low.
Sharkey:							
Sh	0-5	<0.06	0.18-0.20	6.1-7.3	Very high	High	Low.
	5-52	<0.06	0.18-0.20	6.1-8.4	Very high	High	Low.
	52-70	0.06-0.2	0.18-0.22	7.4-8.4	Very high	High	Low.
Sk	0-4	<0.06	0.18-0.20	6.1-7.3	Very high	High	Low.
	4-64	<0.06	0.18-0.20	6.1-8.4	Very high	High	Low.

[1]This mapping unit is made up of two or more dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 15.—CLASSIFICATION OF THE SOILS

Series	Family	Subgroup	Order
Acy	Fine-silty, mixed, thermic	Aeric Ochraqualfs	Alfisols.
Baldwin	Fine, montmorillonitic, thermic	Vertic Ochraqualfs	Alfisols.
Calhoun	Fine-silty, mixed, thermic	Typic Glossaqualfs	Alfisols.
Convent	Coarse-silty, mixed, nonacid, thermic	Aeric Fluvaquents	Entisols.
Goteau	Fine-silty, mixed, thermic	Glossaquic Hapludalfs	Alfisols.
Dundee	Fine-silty, mixed, thermic	Aeric Ochraqualfs	Alfisols.
Fausse	Very-fine, montmorillonitic, nonacid, thermic	Typic Fluvaquents	Entisols.
Frost	Fine-silty, mixed, thermic	Typic Glossaqualfs	Alfisols.
Gallion	Fine-silty, mixed, thermic	Typic Hapludalfs	Alfisols.
Hydraquents		[1]/ Hydraquents	Entisols.
Iberia	Fine, montmorillonitic, thermic	Vertic Haplaquolls	Mollisols.
Loreauville	Fine-silty, mixed, thermic	Udollic Ochraqualfs	Alfisols.
Memphis	Fine-silty, mixed, thermic	Typic Hapludalfs	Alfisols.
Patoutville	Fine-silty, mixed, thermic	Aeric Ochraqualfs	Alfisols.
Perry	Very-fine, montmorillonitic, nonacid, thermic	Vertic Haplaquepts	Inceptisols.
Sharkey	Very-fine, montmorillonitic, nonacid, thermic	Vertic Haplaquepts	Inceptisols.

[1]Classified only at the great group level.

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SOIL ASSOCIATIONS

1 Dundee-Loreauville association: Nearly level, loamy soils on the alluvial plain.

2 Sharkey-Baldwin-Iberia association: Level to gently undulating, mainly clayey soils on the alluvial plain.

3 Memphis-Frost-Coteau association: Level to moderately sloping, loamy soils on the terrace uplands.

4 Acy-Coteau association: Nearly level, loamy soils on the terrace uplands.

5 Fausse-Sharkey association: Level, clayey soils on the alluvial plain.

6 Fausse association: Level, clayey soils that are inside the Atchafalaya Basin Floodway on the alluvial plain.

7 Convent association: Nearly level, loamy soils that are inside the Atchafalaya Basin Floodway on the alluvial plain.

Compiled 1976

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOUISIANA AGRICULTURAL EXPERIMENT STATION

GENERAL SOIL MAP

ST. MARTIN PARISH, LOUISIANA

Scale 1:253,440

1 0 1 2 3 4 Miles

N

Each area outlined on this map consists of more than one kind of soil. The map is thus meant for general planning rather than a basis for decisions on the use of specific tracts.

INDEX TO MAP SHEETS
ST. MARTIN PARISH, LOUISIANA

Scale 1:253,440

1 0 1 2 3 4 Miles

N

POINTE COUPEE PARISH

Inset, sheet 5

91°40′

T7S

ST. LANDRY PARISH

Inset, sheet 4

91°50′

30°20′

T9S

T10S

T11S

T12S

T13S

T14S

T15S

Breaux Bridge

Huron

Catahoula

Cade

IBERIA PARISH

Inset, sheet 42

Inset, sheet 28

Inset, sheet 51

Inset, sheet 62

Inset, sheet 65

Inset, sheet 73

R5E

R6E

R7E

R8E

R9E

R10E

R11E

R12E

R13E

ATCHAFALAYA

MAIN CHANNEL

MISSOURI PACIFIC TRANSPORTATION

SOUTHERN PACIFIC

ASSUMPTION CANAL

INTRACOASTAL WATERWAY

FLOODWAY

LAKE PALOURDE

SOIL LEGEND

The first letter of the map symbol, a capital letter, is the initial letter of the soil name. The second letter is a lower case letter for the narrowly defined units and a capital letter for broadly defined units.1/

SYMBOL	NAME
Ac	Acy silt loam
Ba	Baldwin silty clay loam
Ca	Calhoun silt loam
CB	Convent association, occasionally flooded
CH	Convent-Hydraquents association
CO	Convent soils, frequently flooded
Cu	Coteau silt loam
Cx	Coteau-Frost complex, gently undulating
Dd	Dundee silt loam
De	Dundee-Sharkey complex, gently undulating
FA	Fausse association
FS	Fausse soils
Ft	Frost silt loam, occasionally flooded
Ga	Gallion silt loam
Gp	Gallion-Perry complex, gently undulating
Ib	Iberia silty clay
Lo	Loreauville silt loam
Me	Memphis silt loam, 1 to 3 percent slopes
Mh	Memphis silt loam, 5 to 8 percent slopes
Mp	Memphis-Frost complex, gently undulating
Pt	Patoutville silt loam
Sh	Sharkey clay
Sk	Sharkey clay, frequently flooded

1/ Delineations of broadly defined units generally are much larger and the composition of the unit is apt to be more variable than the other units in the survey area. Mapping has been controlled well enough, however, to be interpreted for the anticipated uses of the soils.

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

CULTURAL FEATURES

BOUNDARIES

- National, state or province
- County or parish
- Minor civil division
- Reservation (national forest or park, state forest or park, and large airport)
- Land grant
- Limit of soil survey (label)
- Field sheet matchline & neatline

AD HOC BOUNDARY (label)

- Small airport, airfield, park, oilfield, cemetery, or flood pool (Davis Airstrip; FLOOD POOL LINE)

STATE COORDINATE TICK

LAND DIVISION CORNERS (sections and land grants)

ROADS

- Divided (median shown if scale permits)
- Other roads
- Trail

ROAD EMBLEMS & DESIGNATIONS

- Interstate (79)
- Federal (410)
- State (52)
- County, farm or ranch (378)

RAILROAD

POWER TRANSMISSION LINE (normally not shown)

PIPE LINE (normally not shown)

FENCE (normally not shown)

LEVEES

- Without road
- With road
- With railroad

DAMS

- Large (to scale)
- Medium or small (water; w)

PITS

- Gravel pit
- Mine or quarry

MISCELLANEOUS CULTURAL FEATURES

- Farmstead, house (omit in urban areas)
- Church
- School
- Indian mound (label) (Indian Mound)
- Located object (label) (Tower)
- Tank (label) (GAS)
- Wells, oil or gas
- Windmill
- Kitchen midden

WATER FEATURES

DRAINAGE

- Perennial, double line
- Perennial, single line
- Intermittent
- Drainage end
- Canals or ditches
  - Double-line (label) (CANAL)
  - Drainage and/or irrigation

LAKES, PONDS AND RESERVOIRS

- Perennial (water; str)
- Intermittent (int)

MISCELLANEOUS WATER FEATURES

- Marsh or swamp
- Spring
- Well, artesian
- Well, irrigation
- Wet spot

SPECIAL SYMBOLS FOR SOIL SURVEY

SOIL DELINEATIONS AND SYMBOLS (CeA; FoB2)

ESCARPMENTS

- Bedrock (points down slope)
- Other than bedrock (points down slope)

SHORT STEEP SLOPE

GULLY

DEPRESSION OR SINK

SOIL SAMPLE SITE (normally not shown)

MISCELLANEOUS

- Blowout
- Clay spot
- Gravelly spot
- Gumbo, slick or scabby spot (sodic)
- Dumps and other similar non soil areas
- Prominent hill or peak
- Rock outcrop (includes sandstone and shale)
- Saline spot
- Sandy spot
- Severely eroded spot
- Slide or slip (tips point upslope)
- Stony spot, very stony spot
- Soil sample site

ST MARTIN PARISH, LOUISIANA — SHEET NUMBER 1

ST. MARTIN PARISH, LOUISIANA NO. 1

This map is compiled on 1979 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coord este grid ticks and land division corners, if shown, are approximatery positioned

1 865 000 FEET

660 000 FEET

Joins inset, sheet 5

R. 7 E. | R. 8 E.

T. 7 S.

ATCHAFALAYA

ST LANDRY

PARISH

RIVER

(Joins sheet 2)

(Joins sheet 5)

1 885 000 FEET

N

1 Mile

5 000 Feet

Scale 1:20000

ST. MARTIN PARISH, LOUISIANA NO. 2

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 3

ST. MARTIN PARISH, LOUISIANA NO. 3

This map is compiled on 1939 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coast &&&& grid ticks and land division corners if shown are approximately positioned

815 000 FEET

R. 5 E. | R. 6 E.

640 000 FEET

ST. LANDRY PARISH

Bayou Portage

Bayou Portage

(Joins inset, sheet 4)

(Joins sheet 8)

1 835 000 FEET

530 000 FEET

(Joins sheet 4)

3

N

Scale 1:20000

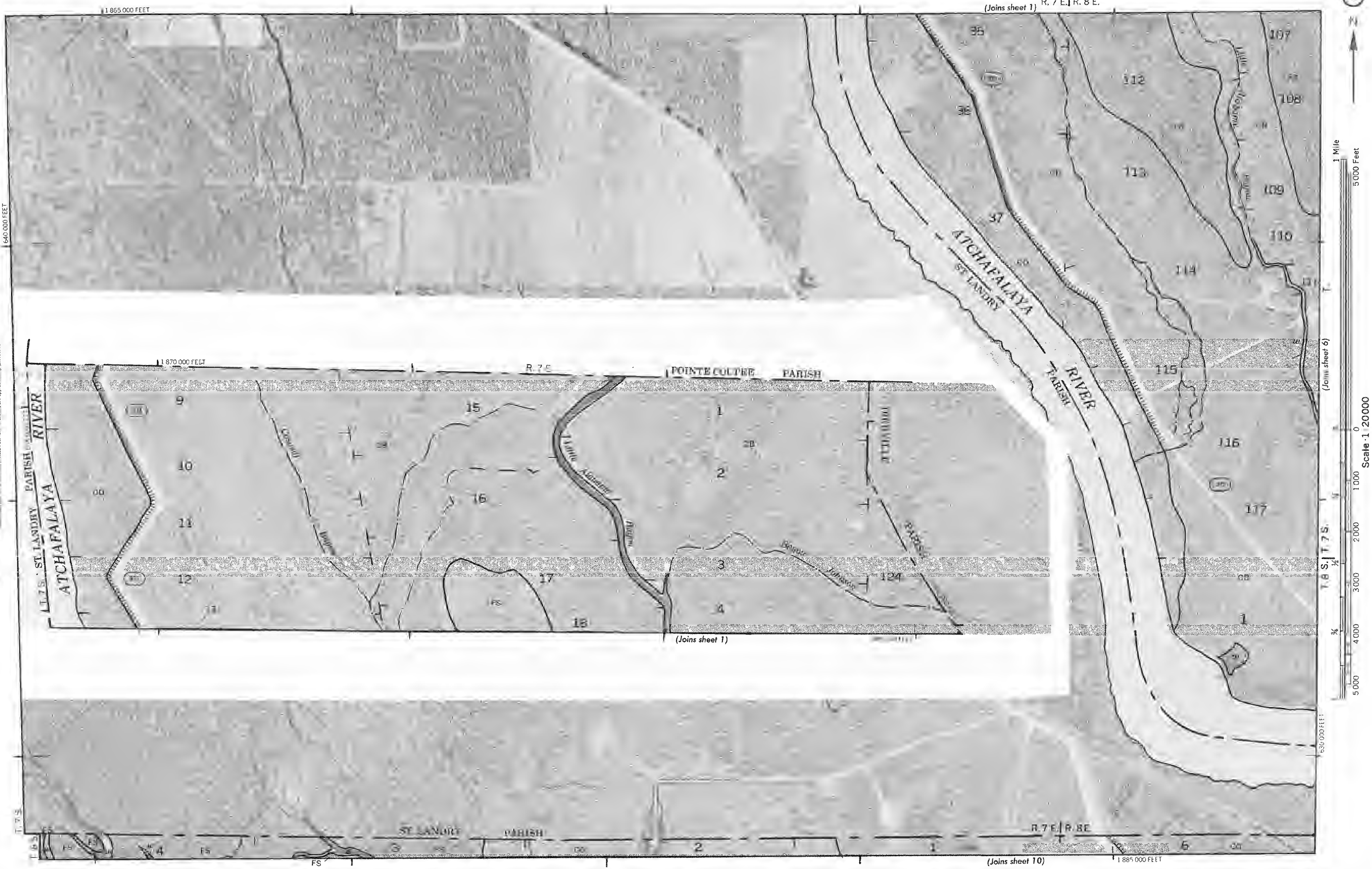
1 Mile

5000 Feet

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 4

This map is compiled on 1979 ——— photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coastwide grid ticks and land division corners, where shown, are approximately positioned

ST. MARTIN PARISH, LOUISIANA NO. 4



This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 7

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land division corners, if shown, are approximately positioned

790 000 FEET

625 000 FEET

615 000 FEET

T. 8 S.

R. 5 E.

(Joins inset, sheet 4)

(Joins sheet 8)

(Joins sheet 12)

ST. LANDRY PARISH

LAFAYETTE PARISH

BAYOU TECHE

Bayou

Front Break

15

14

13

106

22

23

94

1 Mile

5 000 Feet

Scale 1:20000

1" = 10 000 FEET

7

N


8
N
(Joins sheet 3)
R. 5 E. | R. 6 E.
Coteau Rodaire
Darby
Bushville
Mc Veagh
Huron
BAYOU TECHE
Bayou Mauvais
(Joins sheet 7)
(Joins sheet 9)
(Joins sheet 13)
T. 8 S.
1 835 000 FEET
625 000 FEET
615 000 FEET
1 815 000 FEET
Scale 1:20000
1 Mile
5000 Feet
ST. MARTIN PARISH, LOUISIANA NO. 8

LOUISIANA NO. 9
ST. MARTIN PARISH, LOUISIANA
This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

1 840 000 FEET

R. 6 E. | R. 7 E.

(Joins sheet 4)

525 000 FEET

T. 13 S.

BAYOU

PORTAGE

CANAL

LAKE BIGEUX

(Lake Henderson)

(Joins sheet 8)

(Joins sheet 10)

(Joins sheet 14)

615 000 FEET

1 860 000 FEET

9

N

1 Mile

5 000 Feet

Scale 1:20000

ST. MARTIN PARISH, LOUISIANA NO. 10

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ST. MARTIN PARISH, LOUISIANA NO. 11
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Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 12

12

N

1 Mile
5000 Feet
Scale 1:20000
0 1000 2000 3000 4000 5000

R. 5 E.

(Joins sheet 7)

1 810 000 FEET

610 000 FEET

T. 8 S.

(Joins sheet 13)

595 000 FEET

1 790 000 FEET

(Joins sheet 17)

Bayou Magnolia

Teche Bayou

Coteau Bayou

BAYOU TECHE

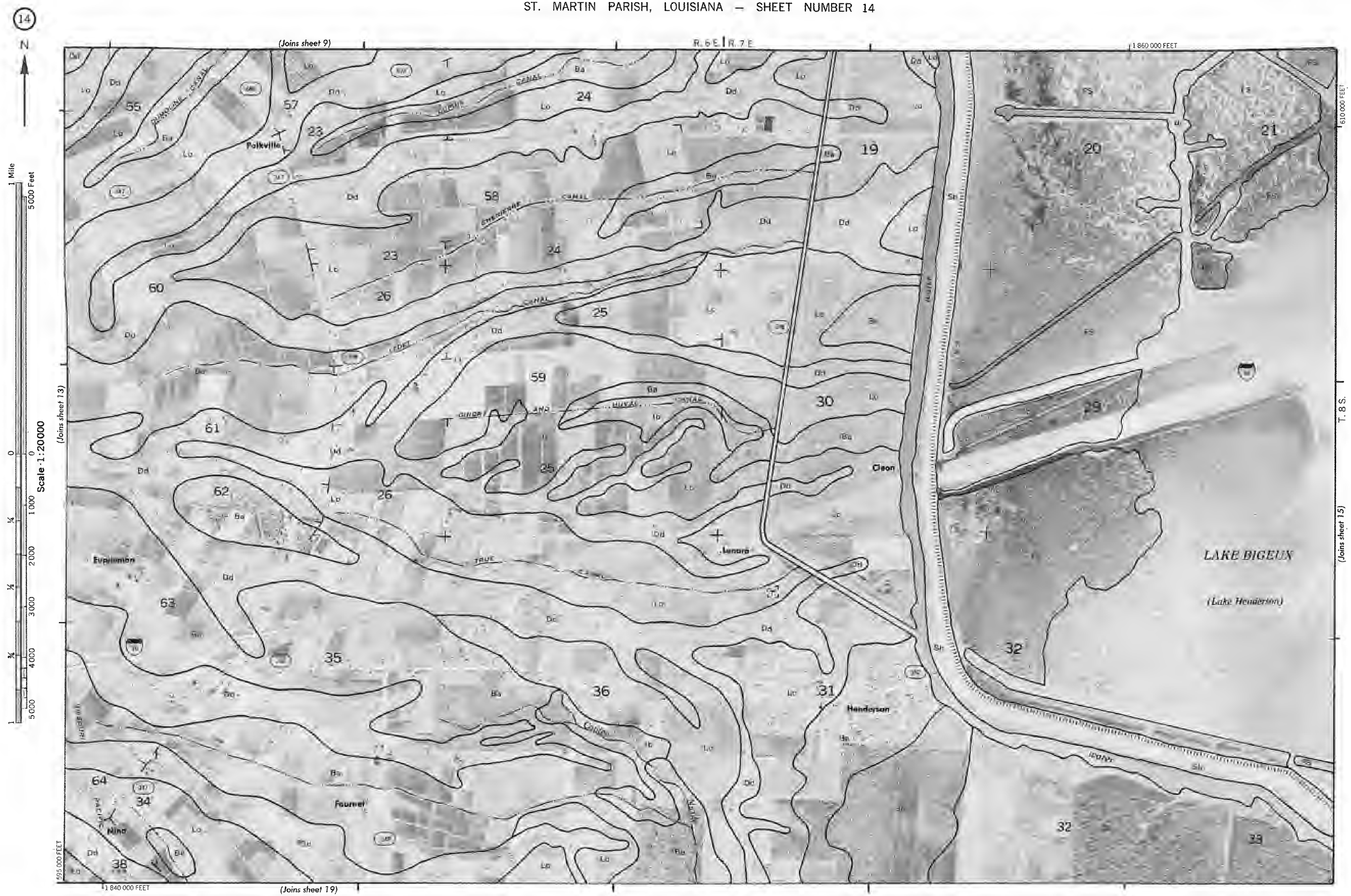
21 22 23 26 27 28 32 33 34 35

107 108 109 110 111 92

Sh Ba Dd Ge Sl

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land division corners, if shown, are approximately positioned

ST. MARTIN PARISH, LOUISIANA NO. 12



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This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

This map is compiled on 1970 aerial photography by the U. S. Department of [illegible]lture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 17

This map is compiled on 1970 aer... photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land division corners ⊕ shown, are approximately positioned.

1 790 000 FEET

690 000 FEET

R. 5 E.

(Joins sheet 12)

T. 9 S.

T. 8 S.

(Joins sheet 18)

860 000 FEET

1 810 000 FEET

(Joins sheet 22)

17

N

1 Mile

5000 Feet

Scale 1:20000

LAFAYETTE PARISH

BAYOU TECHE

BAYOU VERMILION

SOUTHERN PACIFIC

Gecko

Anse La Butte

109 110 140 64 66 67 68 63 60 123 62 70 58 59 86 87 71 69 72 73 42 38 15

18

N

R 5 E R 6 E

T. 9 S. T 8 S.

(Joins sheet 13)

(Joins sheet 17)

(Joins sheet 19)

(Joins sheet 23)

1 835 000 FEET

1 590 000 FEET

1 580 000 FEET

1 815 000 FEET

Champagne

Bayou Fusilier

Coulee Guidry

Coulee

BREAUX BRIDGE

TECHE BAYOU

PACIFIC

Scale 1:20000

1 Mile 5000 Feet

0 ½ ¾ 1 ¼ ½ ¾ 1

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land divisions corners if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 18

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 19

ST. MARTIN PARISH, LOUISIANA NO. 19

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

1 840 000 FEET

595 000 FEET

R. 6 E. | R. 7 E.

T. 9 S. | T. 8 S.

(Joins sheet 14)

(Joins sheet 18)

(Joins sheet 20)

(Joins sheet 24)

580 000 FEET

1 860 000 FEET

19

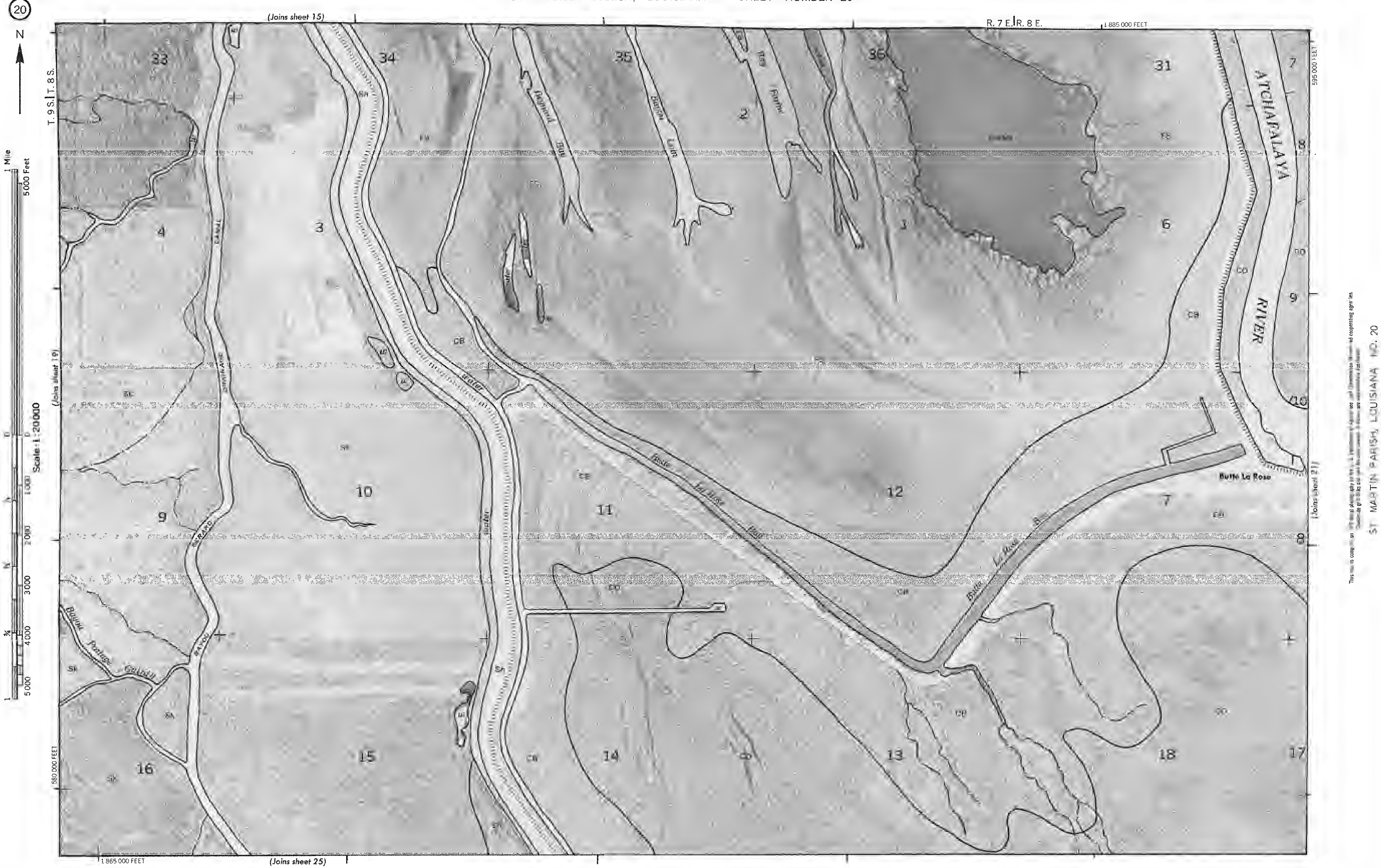
N

1 Mile

5000 Feet

Scale 1:20000

0 1000 2000 3000 4000 5000


20
N
(Joins sheet 15)
(Joins sheet 25)
(Joins sheet 19)
(Joins sheet 21)
R. 7 E. R. 8 E.
T. 9 S. T. 8 S.
1 885 000 FEET
595 000 FEET
580 000 FEET
1 865 000 FEET
ATCHAFALAYA RIVER
Butte La Rose
Scale 1:20000
1 Mile
5000 Feet
33
34
35
36
31
4
3
2
1
6
10
11
12
9
7
16
15
14
13
18
17
ST. MARTIN PARISH, LOUISIANA NO. 20

ST. MARTIN PARISH, LOUISIANA NO. 21
This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 23

ST. MARTIN PARISH, LOUISIANA NO. 23

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land division corners, if shown, are approximately positioned

R. 5 E. | R. 6 E.

1 815 000 FEET

(Joins sheet 18)

575 000 FEET

T. 9 S.

(Joins sheet 22)

(Joins sheet 24)

565 000 FEET

(Joins sheet 30)

1 835 000 FEET

BAYOU TECHE

Bayou Cypremort

23

N

1 Mile

5 000 Feet

Scale 1:20000

0 1000 2000 3000 4000 5000

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 24

24

N

(Joins sheet 19)

R. 6 E. R. 7 E.

1 860 000 FEET

575 000 FEET

565 000 FEET

1 840 000 FEET

(Joins sheet 23)

(Joins sheet 25)

(Joins sheet 31)

1 Mile

5 000 Feet

Scale 1:20000

0 1000 2000 3000 4000 5000

TECHE BAYOU

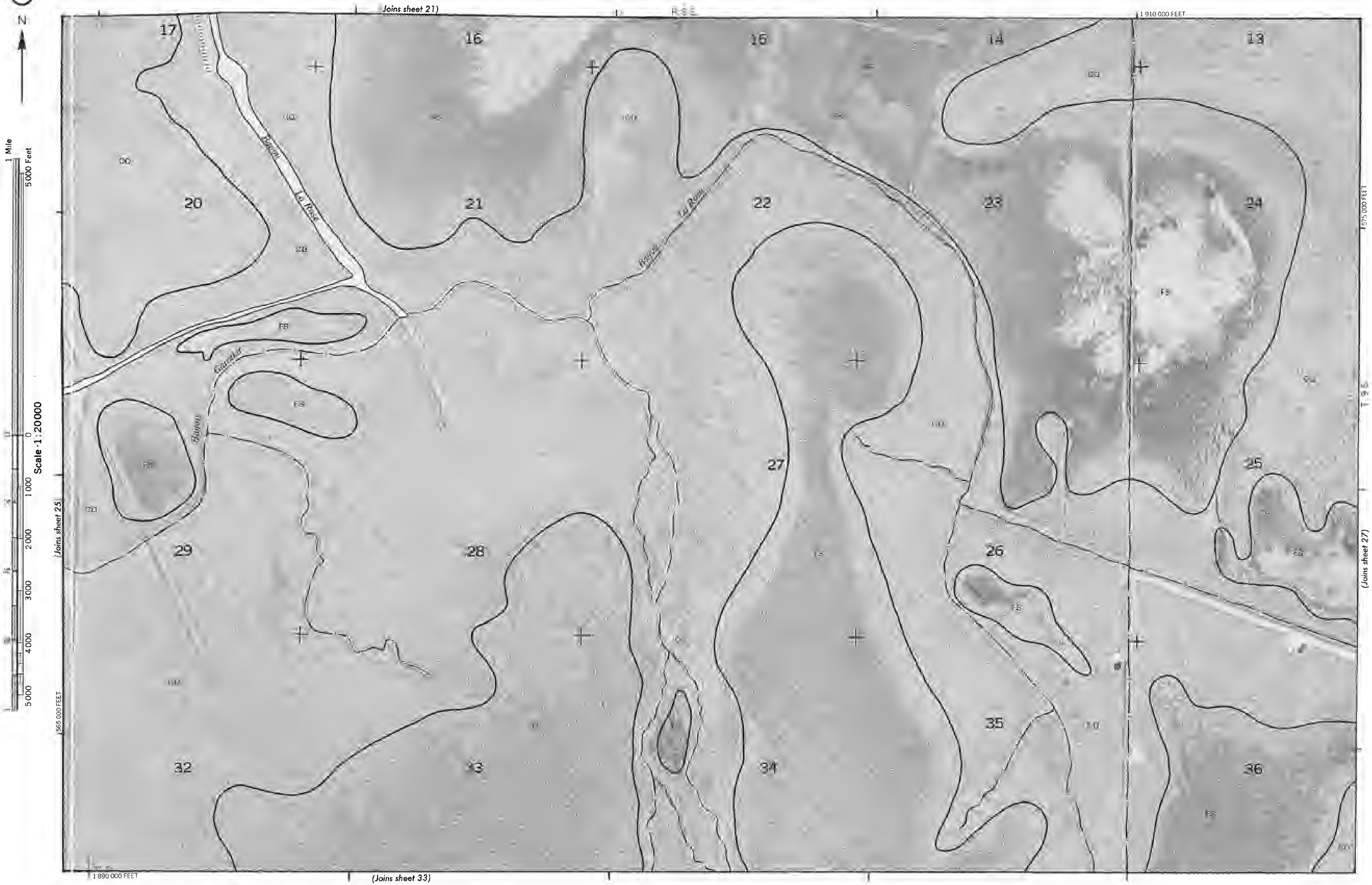
Parks

This map is compiled on 1972 aerial photographs by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land divisions if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 24

ST. MARTIN PARISH, LOUISIANA NO. 25

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.



ST. MARTIN PARISH, LOUISIANA NO. 26

This map is compiled on 1970 aerial photography by the U. S. Department of [redacted] Soil Conservation [redacted] and cooperating agencies. Coordinate grid ticks and land [redacted] corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 27

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land lines on corners, if shown, are approximately positioned.

R. 8 E. | R. 9 E.
(Joins inset, sheet 28)

T. 9 S.

575 000 FEET

(Joins sheet 26)

(Joins sheet 34)

1 935 000 FEET

565 000 FEET

(Joins sheet 28)

27

N

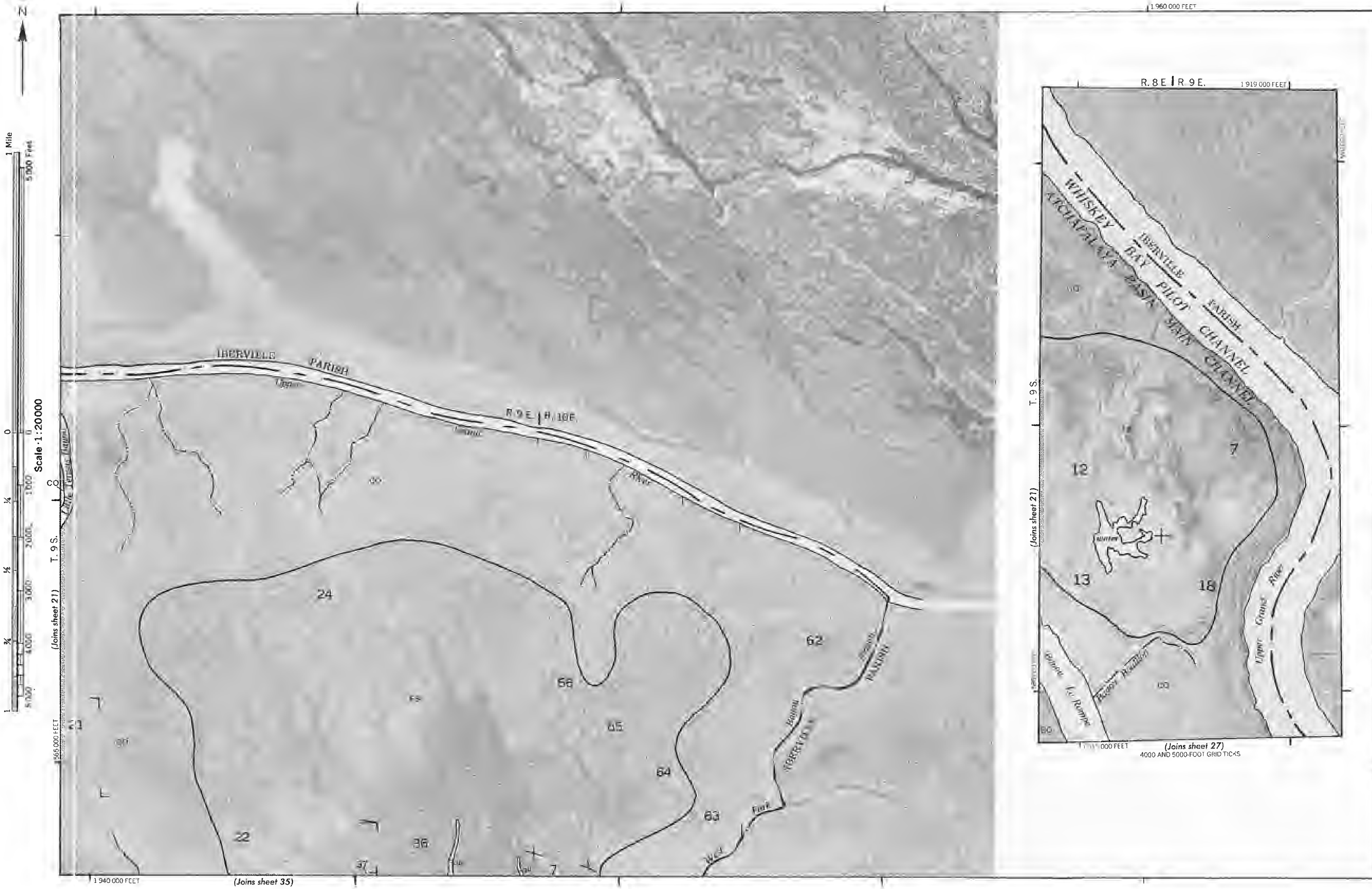
1 Mile

5000 Feet

Scale 1:20000

0 1000 2000 3000 4000 5000

(28)



This map is compiled on 1970 aerial photography by the U.S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST MARTIN PARISH, LOUISIANA — SHEET NUMBER 29

ST. MARTIN PARISH, LOUISIANA NO. 29

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

1 790 000 FEET

560 000 FEET

R. 5 E.

(Joins sheet 22)

T.10S. | T.9 S.

(Joins sheet 30)

550 000 FEET

1 810 000 FEET

29

N

1 Mile

5000 Feet

Scale 1:20000

30

N

1 Mile

5 000 Feet

Scale 1 : 20000

Joins sheet 29

(Joins sheet 23)

R. 5 E. Th. 6 E.

T. 10 S. T. 9 S.

560 000 FEET

550 000 FEET

Lake Martin
(Cote la Pomme)

Cypress Island

Bayou Cypress

Cypress Island

Bayou Cypress

Cypress Bayou

Bayou Teche

(Joins sheet 31)

(Joins sheet 36)

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 30

ST. MARTIN PARISH, LOUISIANA NO. 31

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 32

(32)

N

1 Mile

5000 Feet

Scale 1:20000

0 1000 2000 3000 4000 5000

(Joins sheet 25)

T. 10 S. | T. 9 S.

R. 7 E. | R. 8 E.

Catahoula Cove

Catahoula Chute

Catahoula

Bayou Deseille

(Joins sheet 31)

(Joins sheet 33)

(Joins sheet 38)

950 000 FEET

1,865 000 FEET

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land division corners, if shown, are approximately positioned

ST. MARTIN PARISH, LOUISIANA NO. 32

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 33

ST. MARTIN PARISH, LOUISIANA NO. 33

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

1 890 000 FEET

T. 8 E.

(Joins sheet 26)

560 000 FEET

T. 10 S. | T. 9 S.

N

33

1 Mile

5000 Feet

Scale 1:20000

(Joins sheet 34)

550 000 FEET

(Joins sheet 32)

(Joins sheet 39)

1 910 000 FEET


34
N
1 Mile
5000 Feet
Scale 1:20000
(Joins sheet 27)
(Joins sheet 33)
(Joins sheet 35)
(Joins sheet 40)
1 935 000 FEET
550 000 FEET
LONG
LAKE
ATCHAFALAYA
BASIN
MAIN
CHANNEL
36
31
32
33
34
23
37
38
1
6
5
4
3
2
12
7
8
9
10
13
18
17
16
15

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 35

ST. MARTIN PARISH, LOUISIANA NO. 35

This map was compiled on 1970 aerial photography by the U. S. Department of Agriculture Soil Conservation Service in cooperation with agencies
Coordinate grid ticks and land division corners, if shown, are approximately positioned

1 940 000 FEET

(Joins sheet 28)

R. 9 E. | R. 10 E.

T. 10 S. | T. 9 S.

560 000 FEET

(Joins sheet 34)

(Joins sheet 41)

1 960 000 FEET

35

N

1 Mile

5000 Feet

Scale 1:20000

0 1000 2000 3000 4000 5000

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 36

36

N

1 Mile

5000 Feet

Scale 1:20000

0 1000 2000 3000 4000 5000

R. 5 E. | R. 6 E.

(Joins sheet 30)

1 835 000 FEET

545 000 FEET

(Joins sheet 37)

(Joins inset, sheet 42)

530 000 FEET

(Joins sheet 43)

T. 11 S. | T. 10 S.

Cypress Island Levee

Bayou

CYPRESS ISLAND CANAL

SEWAGE DISPOSAL POND

This map is compiled on 1970 aerial photography by the U. S. Department of Agricul ture. Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land d ivision corners, if shown are approximately positioned

LOUISIANA NO. 36

ST. MARTIN PARISH, LOUISIANA

ST. MARTIN PARISH, LOUISIANA NO. 37

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Streams are approximately positioned

1 840 000 FEET

R. 6 E. | R. 7 E.

(Joins sheet 31)

(Joins sheet 36)

(Joins sheet 38)

(Joins sheet 44)

T. 11 S. | T. 10 S.

1 630 000 FEET

ST. MARTINVILLE
(Parish Seat)

LOUISIANA
EVANGELINE
STATE PARK

CYPRESS ISLAND COULEE CANAL

Bayou Teche

Isle Labbe

Coulee

Chitimacha

37

N

1 Mile

5000 Feet

0

Scale 1:20000

¼ 0 ¼ ½ 1 Miles

1000 2000 3000 4000 5000 Feet

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 38

38

N

1 Mile

5000 Feet

Scale 1:20000

(Joins sheet 32)

R.7E. R.8E.

1 885 000 FEET

(Joins sheet 37)

1 865 000 FEET

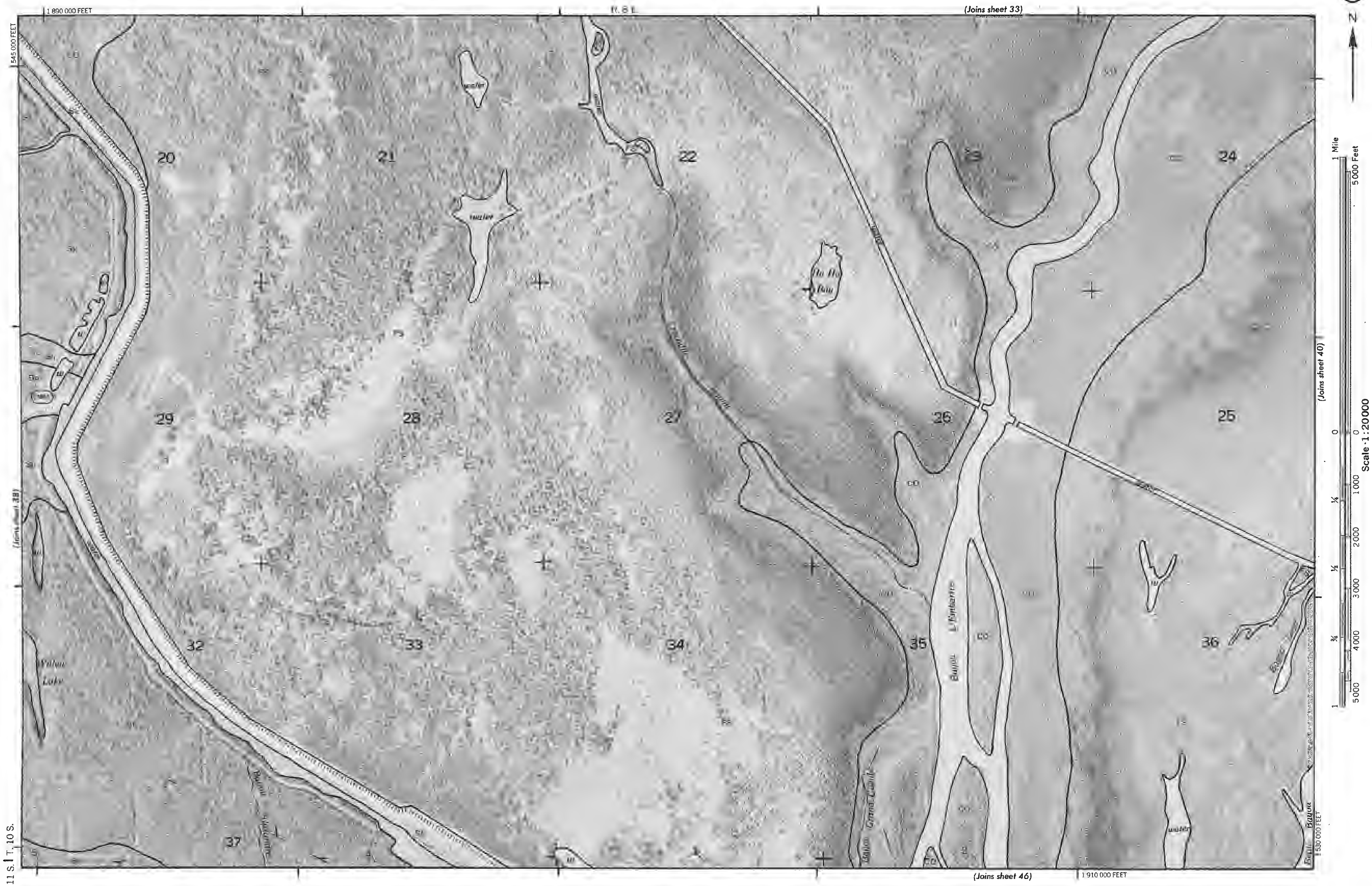
(Joins sheet 45)

IBERIA PARISH

T. 11 S. | T. 10 S.

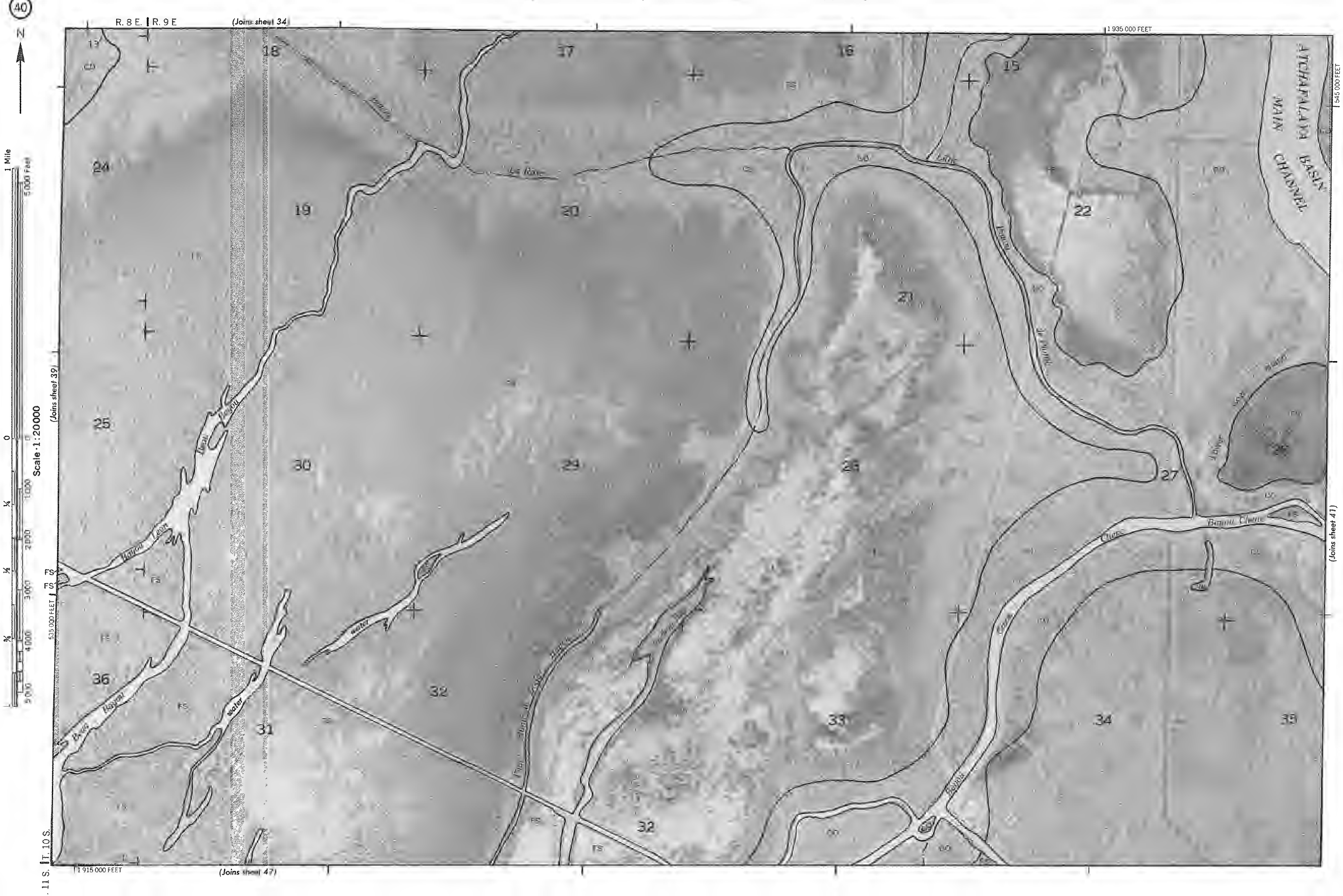
This map was compiled on 1979 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land division corners, — shown are approx

ST. MARTIN PARISH, LOUISIANA NO. 38



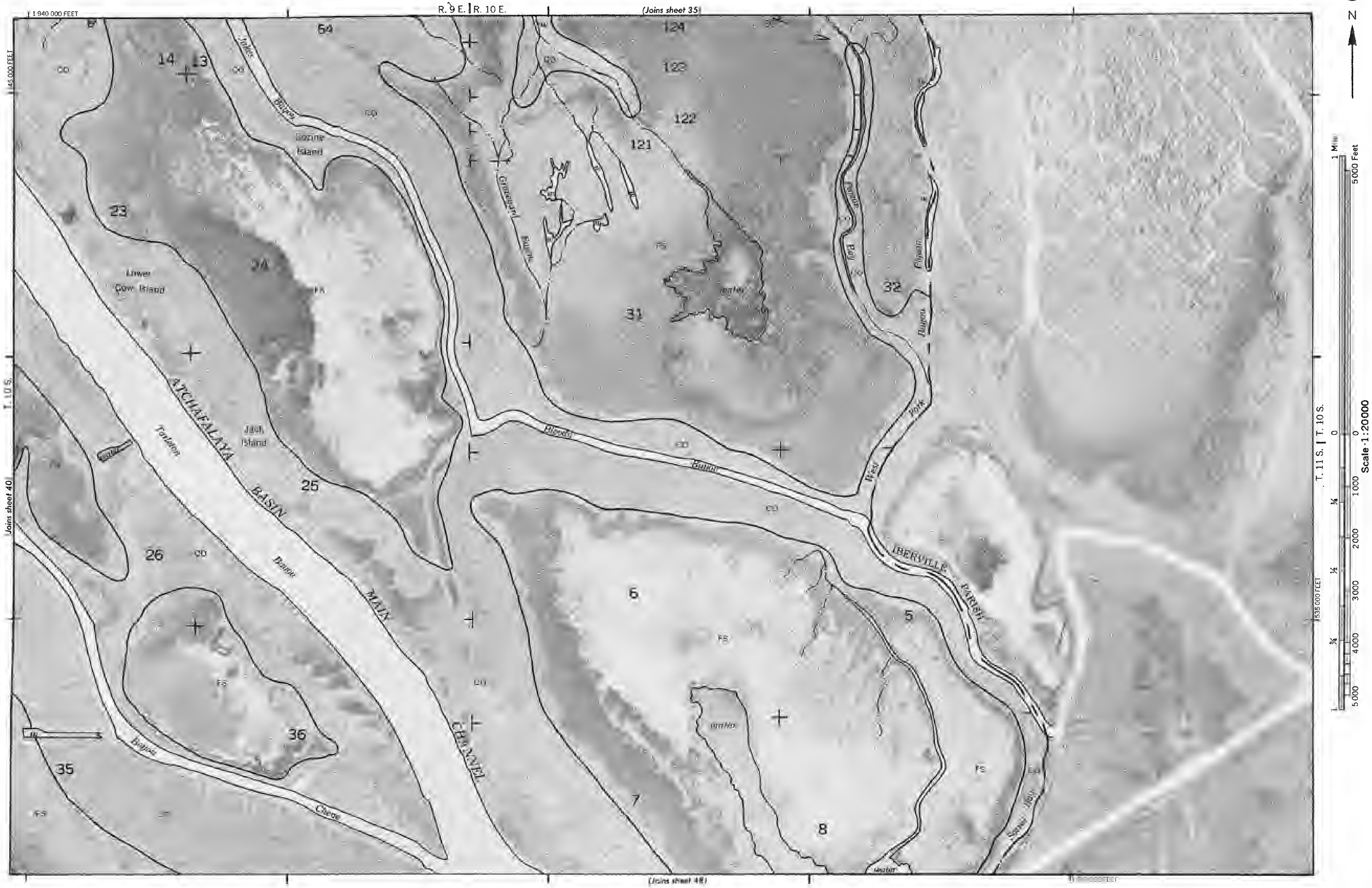
ST. MARTIN PARISH, LOUISIANA NO. 39

This map is compiled on 1970 photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.



This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned

ST. MARTIN PARISH, LOUISIANA NO. 40



This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

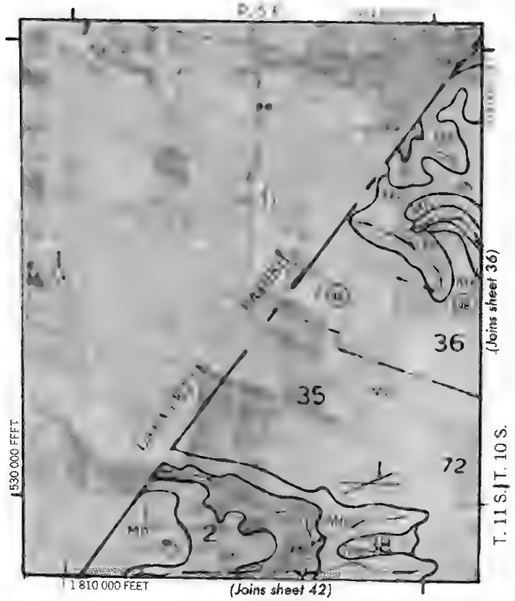
42

N

1 Mile
5 000 Feet
Scale 1:20000
0 1000 2000 3000 4000 5000

INSET A

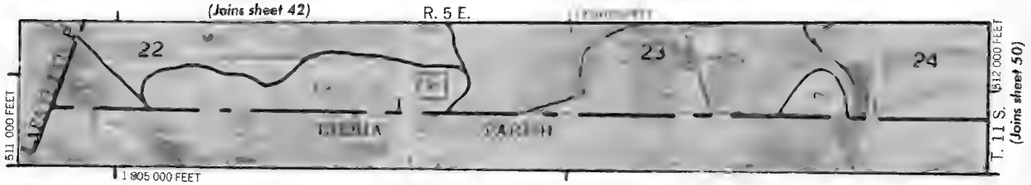
R. 5 E.



4000 AND 5000-FOOT GRID TICKS

INSET B

(Joins sheet 42) R. 5 E.



1000 AND 5000 FOOT GRID TICKS

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture Soil Conservation Service and cooperating agencies. Control, state grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 42

ST MARTIN PARISH, LOUISIANA — SHEET NUMBER 43

ST. MARTIN PARISH, LOUISIANA NO. 43

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture. Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land division corners, if shown, are approximately positioned

1 815 000 FEET

R. 5 E. | R. 6 E.

(Joins sheet 36)

T. 11 S.

(Joins sheet 42)

ST. MARTINVILLE
(Parish Seat)

Delesdernier

(Joins sheet 44)

1 835 000 FEET

(Joins sheet 50)

1 1 835 000 FEET

43

N

1 Mile

5000 Feet

Scale 1:20000

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 44

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 45

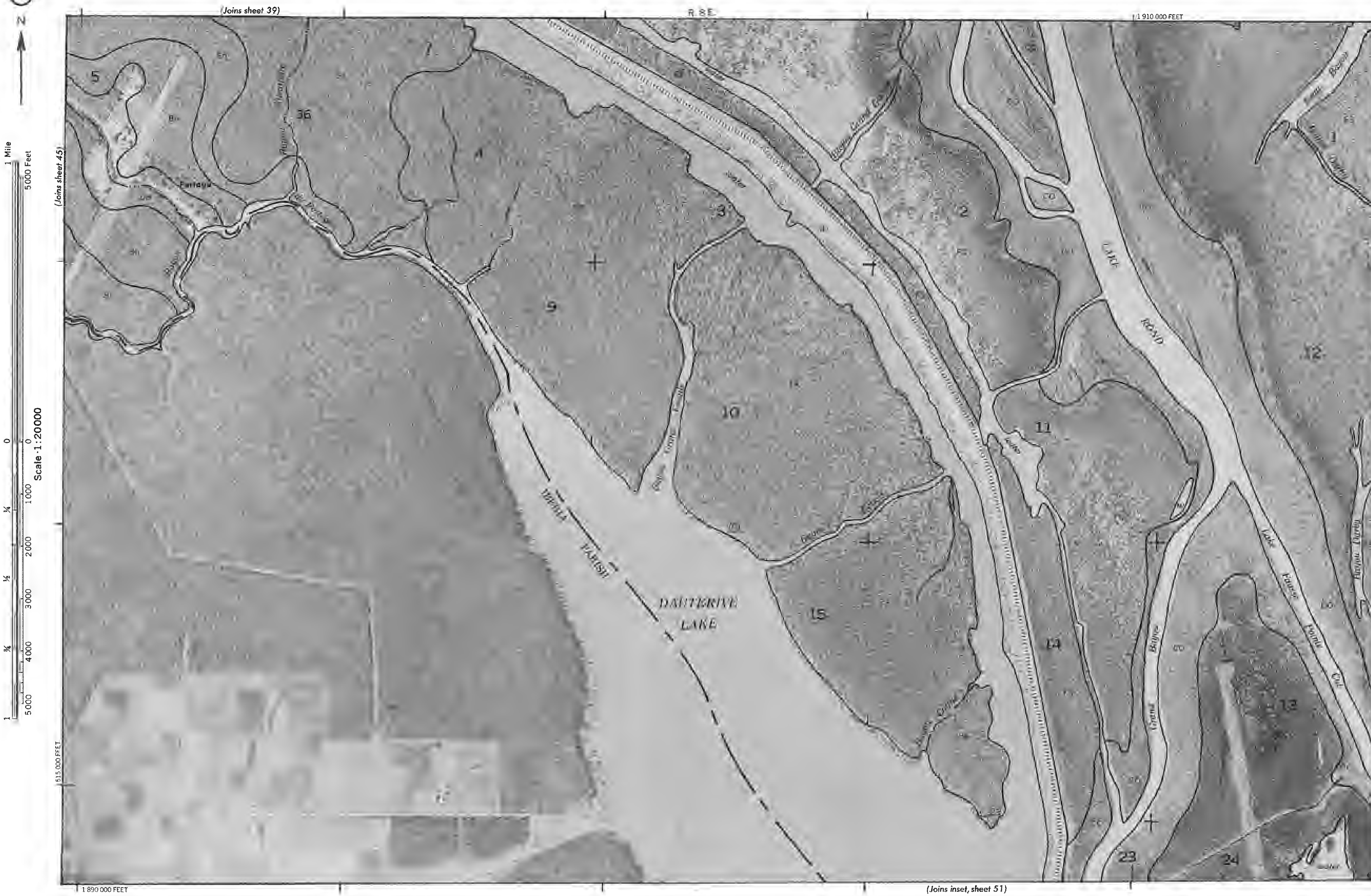
45

N

1 Mile
5 000 Feet

Scale 1:20000

This map is compiled on 1970 [illegible] photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coastwide grid ticks and land dimension contents. If shown, are approximately positioned



This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land division corners, if shown, are approximately positioned

ST. MARTIN PARISH, LOUISIANA NO. 46

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 47

ST. MARTIN PARISH, LOUISIANA — SHEET NO. 47

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

R. 8 E. | R. 9 E

1 915 000 FEET

1 525 000 FEET

T. 11 S. | T. 10 S.

(Joins sheet 40)

(Joins sheet 46)

(Joins sheet 48)

(Joins sheet 52)

1 935 000 FEET

515 000 FEET

47

N

1 Mile

5000 Feet

Scale 1:20000

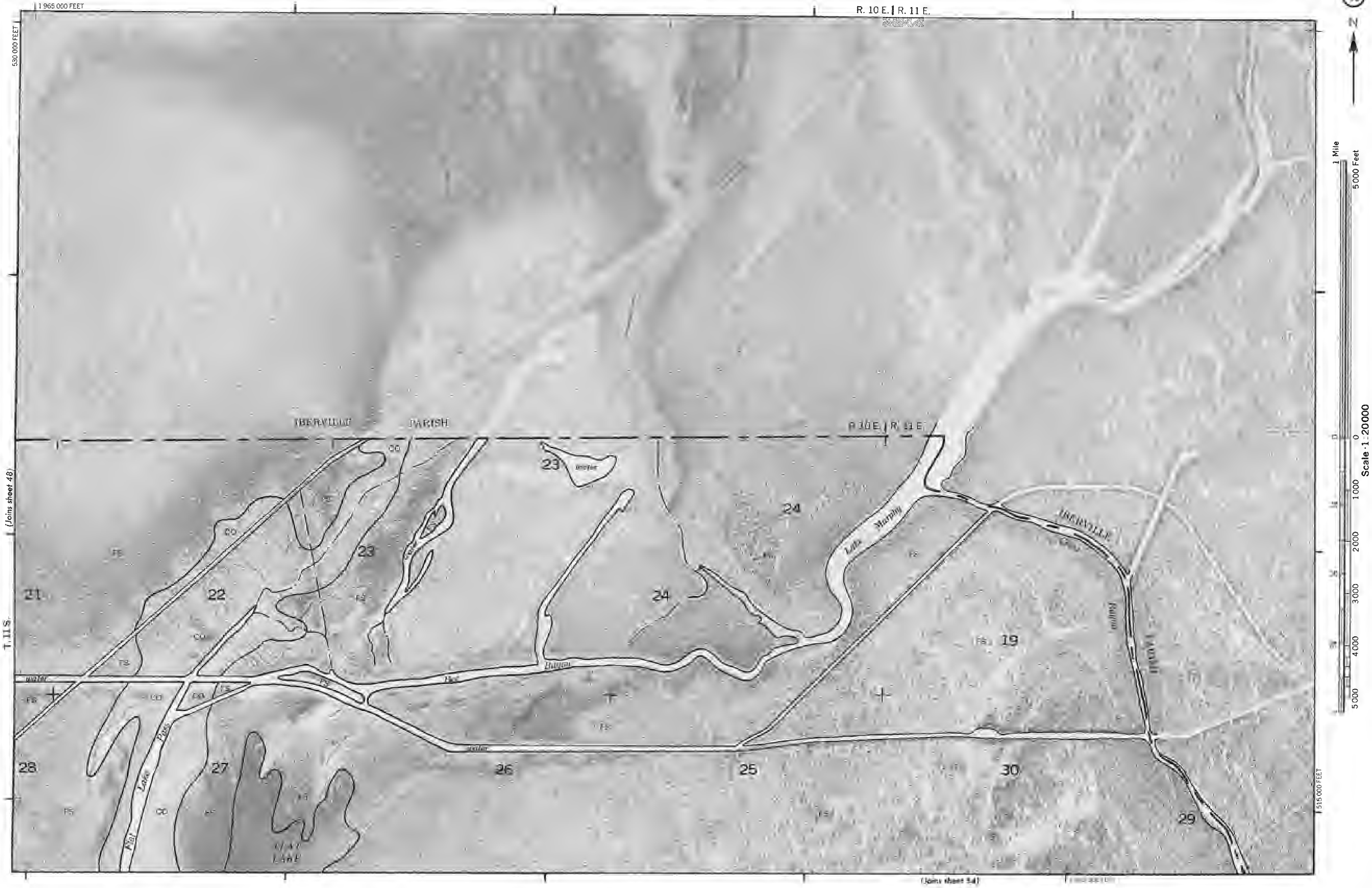
0 1000 2000 3000 4000 5000

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 48

ST. MARTIN PARISH, LOUISIANA NO. 49

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.



50

N

R. 5 E. R. 6 E.

(Joins sheet 43)

(Joins inset, sheet 42)

1 835 000 FEET

(Joins sheet 51)

T. 11 S.

500 000 FEET

815 000 FEET

SPANISH

IBERIA PARISH

SOUTHERN PACIFIC

1 Mile

5 000 Feet

Scale 1:20000

ST. MARTIN PARISH, LOUISIANA NO. 51

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

1 840 000 FEET

510 000 FEET

(Joins sheet 44)

R. 6 E. | R. 7 E.

(Joins sheet 50)

T. 11 S.

BAYOU TECHE

IBERIA PARISH

ST. MARTIN PARISH

1 855 000 FEET

R. 6 E.

(Joins sheet 46)

T. 11 S.

DAUTERIVE LAKE

Grand

IBERIA PARISH

(Joins sheet 52)

1 913 000 FEET

51

N

1 Mile

5 000 Feet

Scale 1:20000

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 52

ST. MARTIN PARISH, LOUISIANA – SHEET NUMBER 53

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

54

N

(Joins sheet 49)

R. 10 E. | R. 11 E.

1 985 000 FEET

28 27 26 25 30 29

33 31 35 36 31 32

(Joins sheet 53)

T. 12 S. | T. 11 S.

1 510 000 FEET

IBERIA PARISH

1 500 000 FEET

1 965 000 FEET

1 Mile

6000 Feet

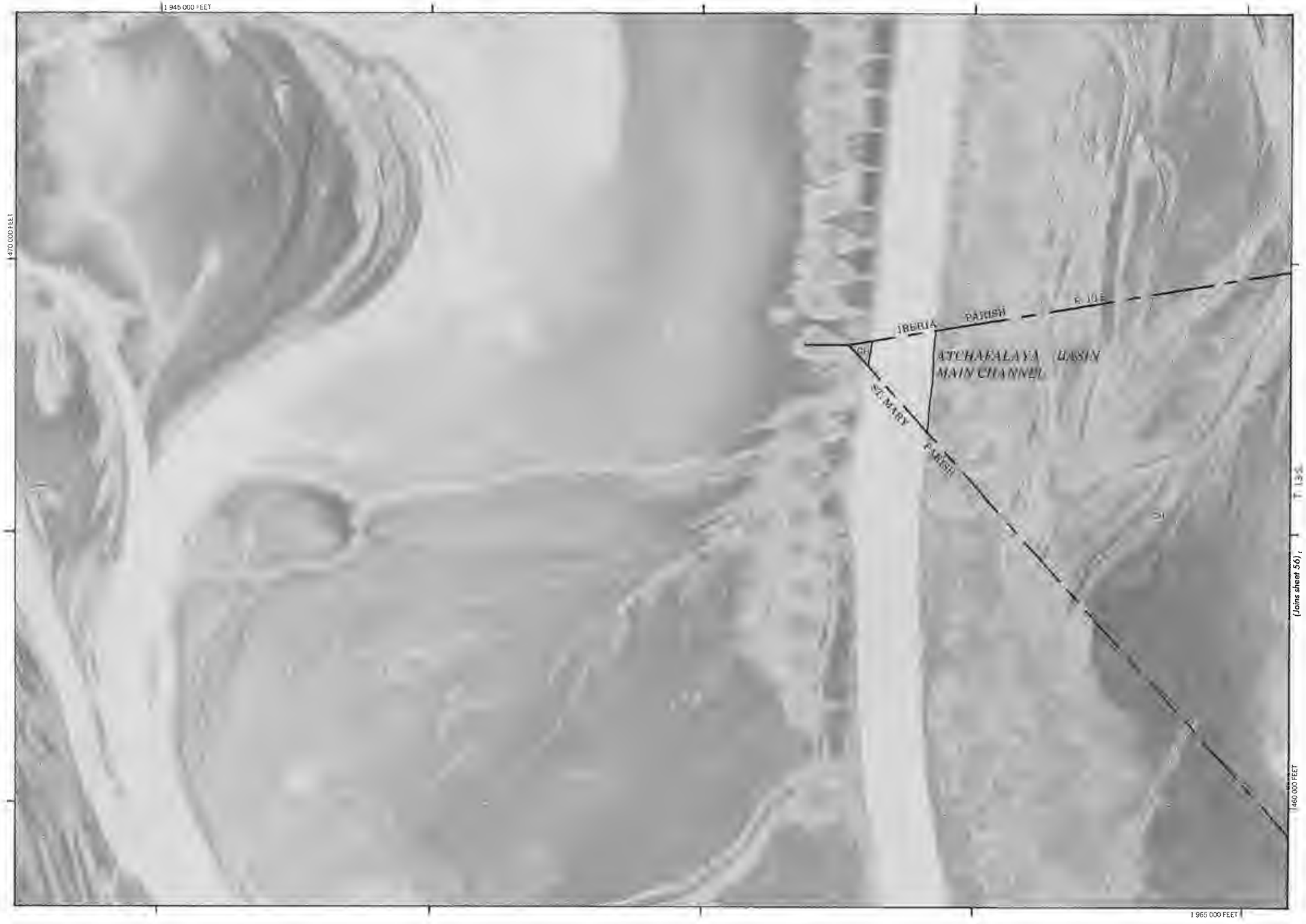
Scale 1:20000

0 ¼ ½ ¾

0 1000 2000 3000 4000 5000

This map is compiled on 1970 aerial photographs by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 55



55

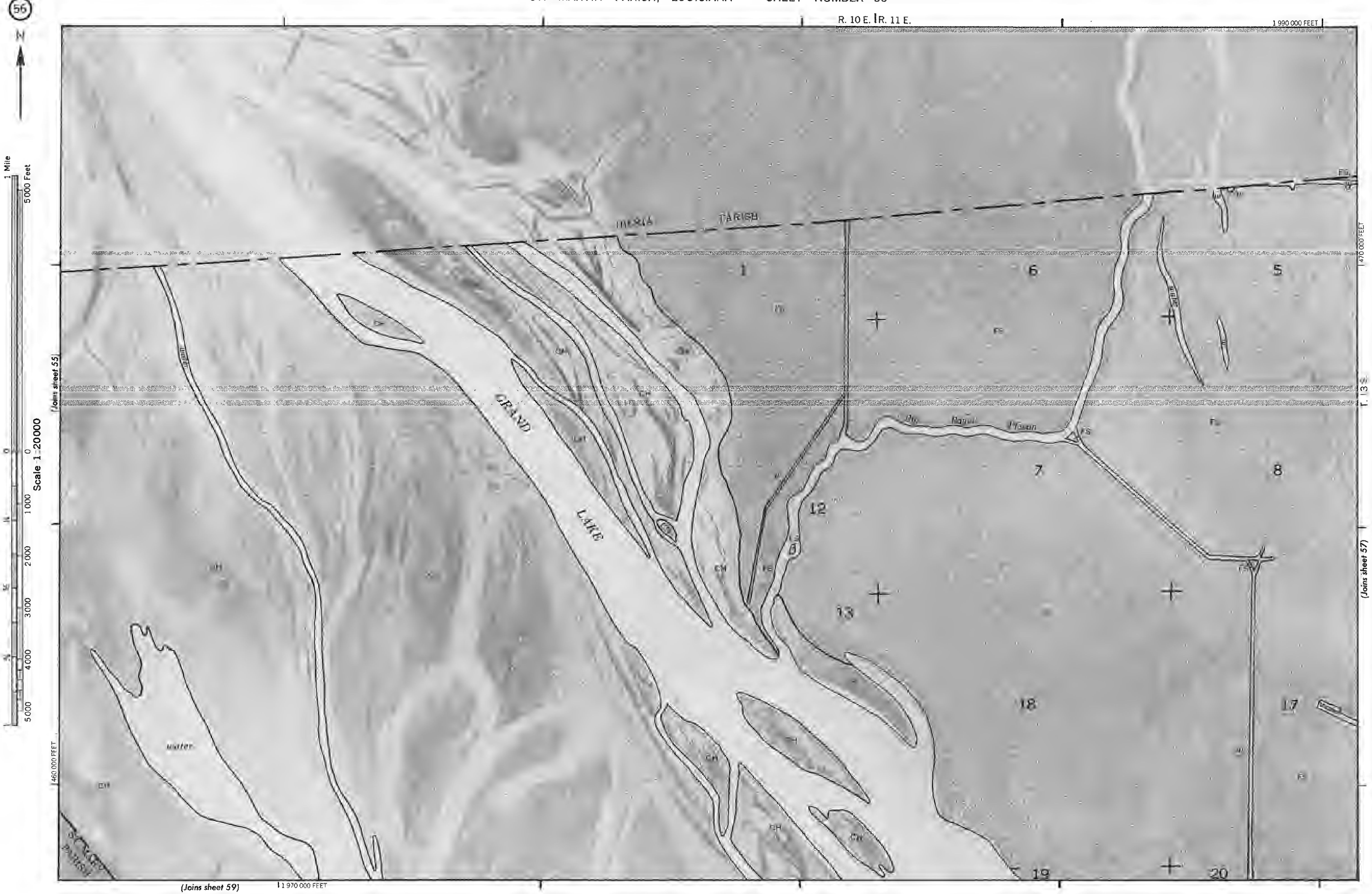
N

1 Mile
5000 Feet

0 1000 2000 3000 4000 5000

Scale 1:20000

This map is compiled on 1570 air rail photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate ticks and land division corners, if shown, are approximately plotted.



This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 57

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 59

This map is compiled on 1970 aerial photography by the U S Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

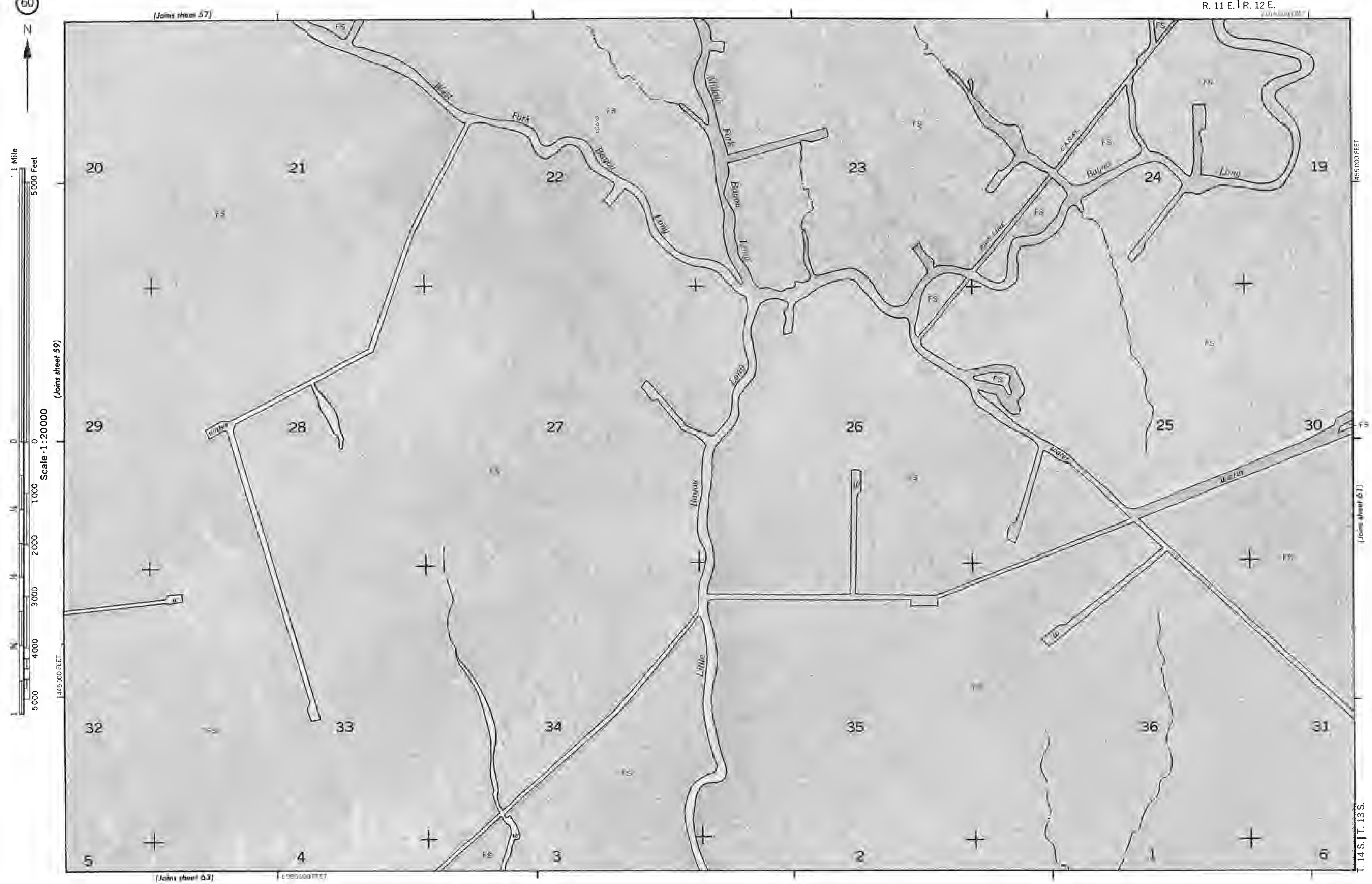
ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 59

R. 11 E.

1 ¾ ½ ¼ 0 1 Mile
5 000 4 000 3 000 2 000 1 000 0 5 000 Feet
Scale 1:20000

N

59



This map is compiled on 1970 aerial photographs by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 60

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 61

2 020 000 FEET

R. 12 E.

(Joins sheet 58)

61

N

1 Mile

5 000 Feet

Scale 1:20000

(Joins sheet 60)

455 000 FEET

T. 14 S.

T. 13 S.

19 20 21 22 30 29 28 27 26 31 32 33 34 35 6 5 4 3 2

BELLE RIVER

INTRACOASTAL WATERWAY

PARISH

(Joins sheet 64)

2 040 000 FEET

62

N

1 Mile
5000 Feet

Scale 1:20000

R. 11 E.

(Joins lower right)

1 990 000 FEET

425 000 FEET

(Joins sheet 59)

R. 11 E.

1 990 000 FEET

440 000 FEET

ATCHAFALAYA BASIN MAIN CHANNEL

ST. MARY PARISH

ST. MARTIN PARISH

GRAND LAKE

CYPRESS ISLAND

Cypress Pools

Blue Point

water

CH

29

31

32

5

8

T. 14 S.

T. 15 S.

410 000 FEET

430 000 FEET

1 985 000 FEET

1 980 000 FEET

(Joins sheet 66)

(Joins inset, sheet 55)

(Joins sheet 63)

(Joins upper left)

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land division corners, if shown, are approximately positioned

ST. MARTIN PARISH, LOUISIANA NO. 62

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 64

64

N

1 Mile
5000 Feet

Scale 1:20000

(Joins sheet 61)

R. 12 E.

040 000 FEET

ASSUMPTION BELLE R.

INTRACOASTAL WATERWAY

T. 14 S.

(Joins sheet 63)

(Joins sheet 65)

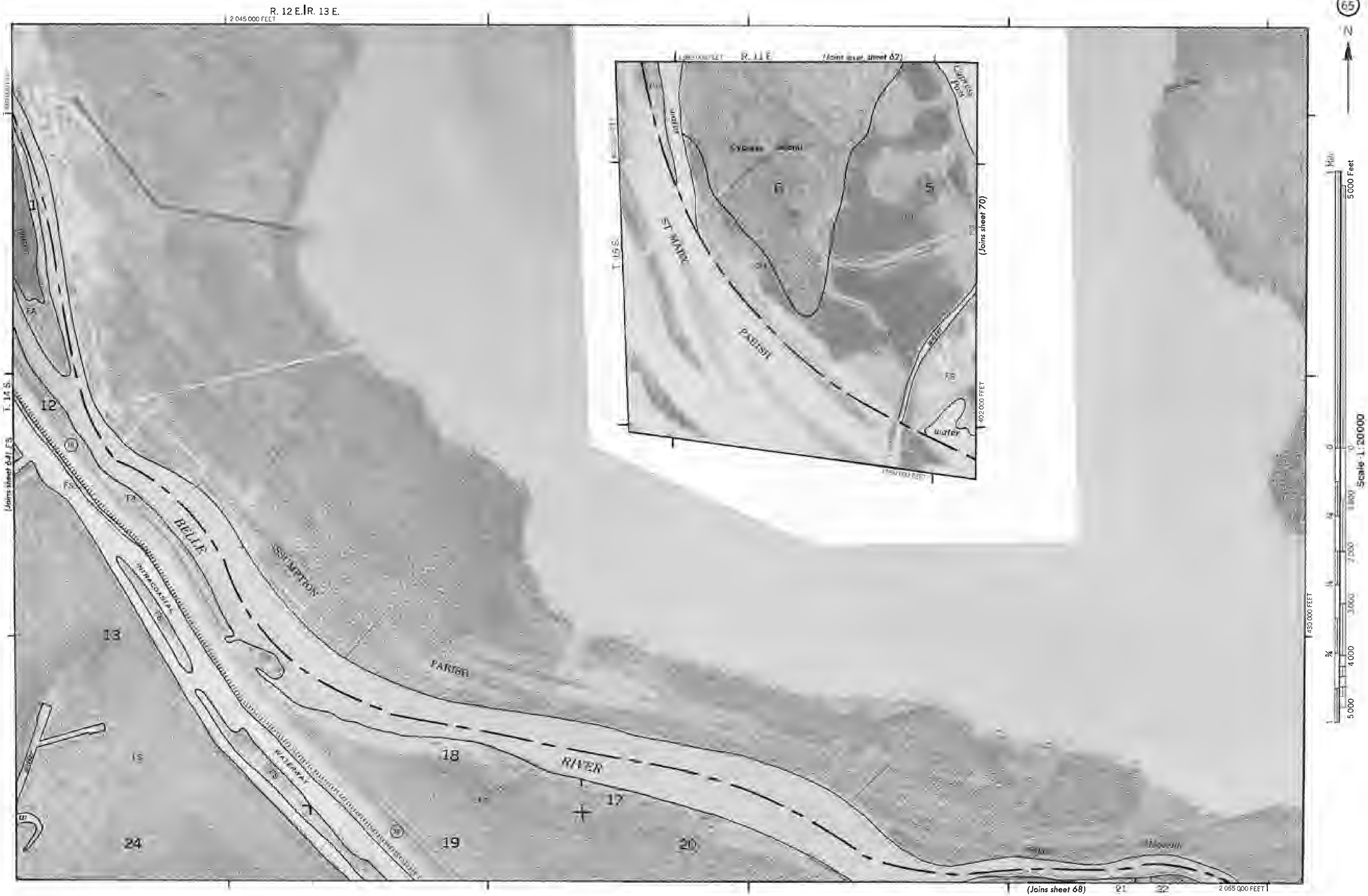
(Joins sheet 67)

430 000 FEET

2 620 000 FEET

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 64



ST. MARTIN PARISH, LOUISIANA NO. 65

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies. Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 66

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 67

ST. MARTIN PARISH, LOUISIANA NO. 67

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid lines and land division corners, if shown, are approximately positioned

2 020 000 FEET

425 000 FEET

R. 10 E.

(Joins sheet 64)

(Joins sheet 66)

(Joins sheet 68)

(Joins sheet 71)

2 040 000 FEET

410 000 FEET

T. 13 S.

T. 14 S.

67

N

1 Mile

5 000 Feet

Scale 1:20000

0 0

5000 1000 2000 3000 4000 5000

1 ¼ ½ ¾ 1

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 68

68

N

1 Mile
5000 Feet
0
0
Scale · 1:20000
¼
½
¾
1
1000
2000
3000
4000
5000

(Joins sheet 65)

R. 12 E. | R. 13 E.

2 065 000

(Joins sheet 67)

T. 15 S. | T. 14 S.

410 000 FEET

Little Bayou Sorrel

Bayou Sorrel

24 19 20 21 22

25 30 29 28 27

36 31 32 33 34

1 6 5 4 3

(Joins sheet 72)

2 045 000 FEET

T. 15 S. | T. 14 S.

This map is compiled on 1970 aerial photography by the U S Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid ticks and land division corners, if shown, are approximately ——— ated

ST. MARTIN PARISH, LOUISIANA NO. 68

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 69

69

N

Mile

5 000 Feet

0

1 000 2 000 3 000 4 000 5 000

Scale 1:20000

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies
Coordinate grid ticks and lines are approximately positioned

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 70

70

N

(Joins sheet 66)

R. 11 E. | R. 12 E.

2 015 000 FEET

(Joins inset, sheet 65)

1 Mile

5000 Feet

Scale 1:20000

1 995 000 FEET

405 000 FEET

(Joins sheet 71)

T. 15 S.

5 4 TIGER ISLAND 3 2 1 6 7

FS CH water

Bayou Boutle

American Island

American Bayou

ATCHAFALAYA BASIN

Cypress Pass

Cypress Island

MAIN CHANNEL

SIX MILE LAKE

ST. MARY PARISH

This map is compiled on 1970 aerial photography by the U. S. Department of Agriculture, Soil Conservation Service and cooperating agencies.
Coordinate grid ticks and land division corners, if shown, are approximately positioned.

ST. MARTIN PARISH, LOUISIANA NO. 70

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 71

ST. MARTIN PARISH, LOUISIANA NO. 71

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71

N

2 020 000 FEET

405 000 FEET

R. 12 E.

(Joins sheet 67)

T. 15 S.

(Joins sheet 70)

(Joins sheet 72)

385 000 FEET

2 040 000 FEET

American Island

American Pass

(Grand Pass)

American Bayou

Big Water

Little Bayou Joe

Jessie Bayou

Big Bayou Jessie

Bayou Cocodrie

Cocodrie Bayou

Bayou Chevreuil

Bear Bayou

SIX MILE LAKE

ST. MARY PARISH

Dog Island Pass

FLAT LAKE

Dog Island

water

FS

CH

1 Mile

5 000 Feet

Scale 1:20000

ST. MARTIN PARISH, LOUISIANA — SHEET NUMBER 72

72

N

(Joins sheet 68)

R. 12 E. | R. 13 E.

2 055 000 FEET

(Joins sheet 71)

1 Mile

5 000 Feet

Scale 1:20000

395 000 FEET

405 000 FEET

T. 15 S.

(Joins sheet 73)

(Joins inset, sheet 73)

2 045 000 FEET

Bear Bayou

Crosspoint Bayou

INTRACOASTAL WATERWAY

Long Bayou

Stephenville

FLAT LAKE

Long Island

Milhomme

LAKE PALOURDE

FS

FA

1 2 3 4 5 6 7 8 9 10 12 13 15 16 17 18 19 20 21 22 24

70

76

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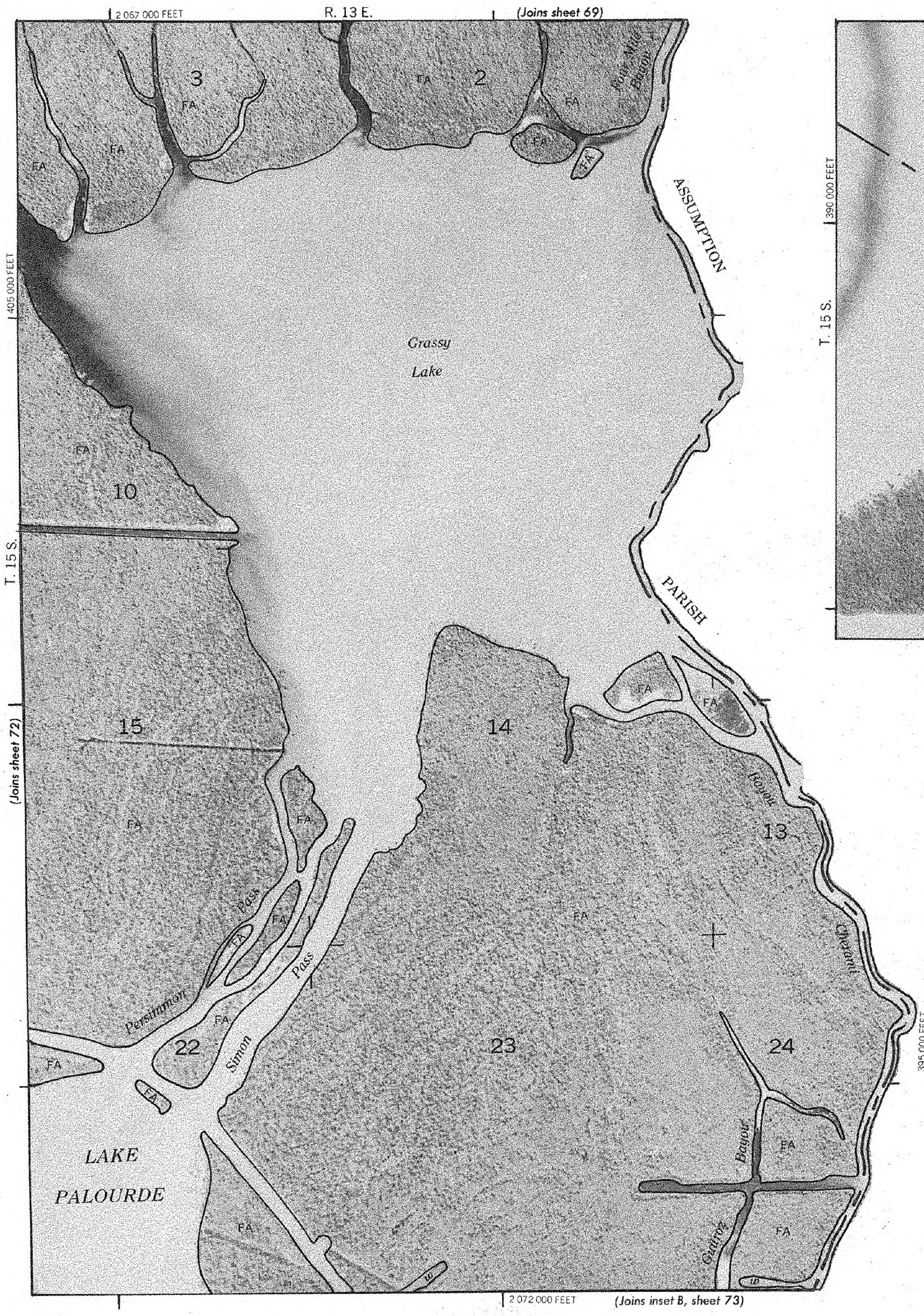
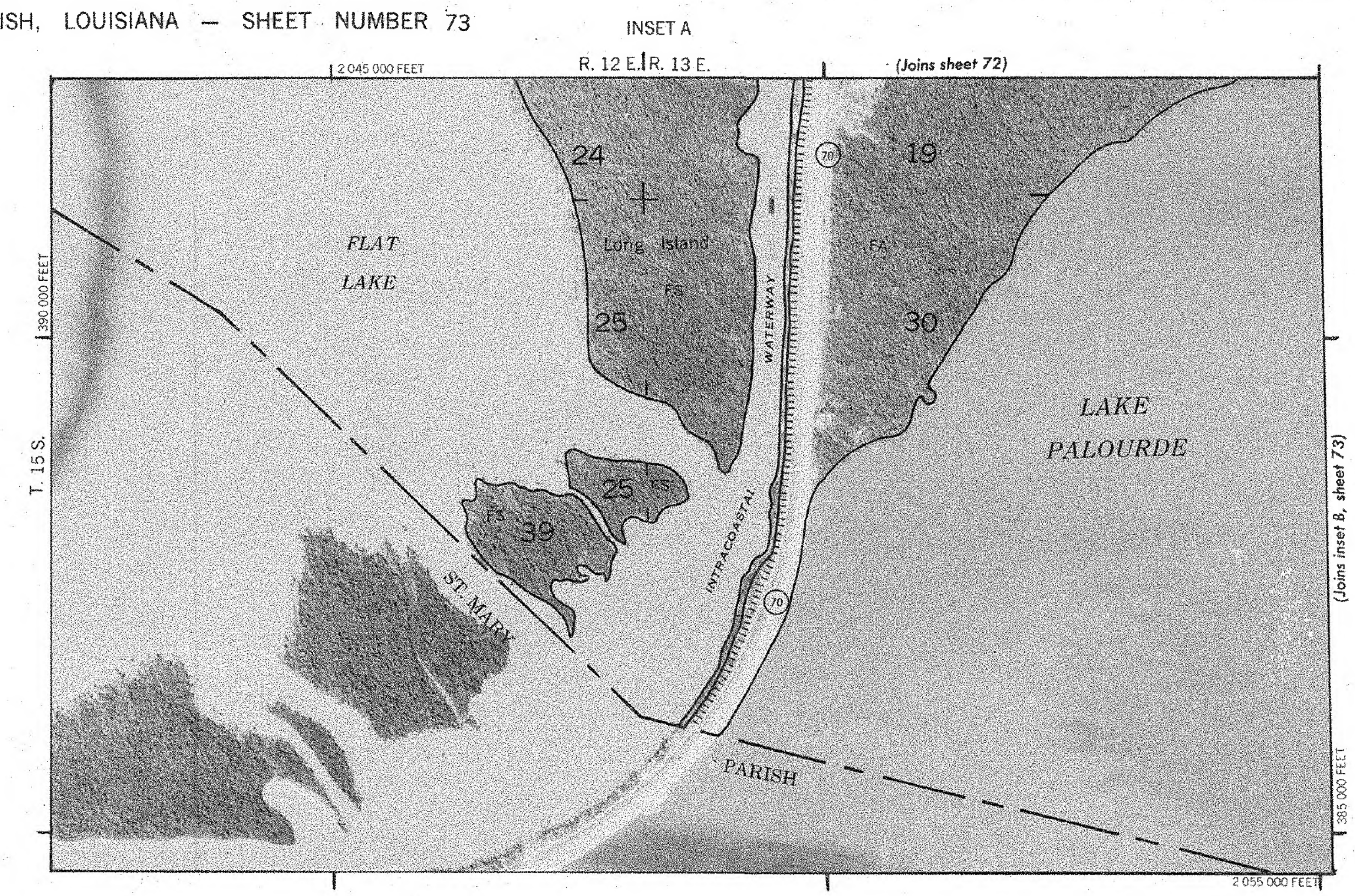
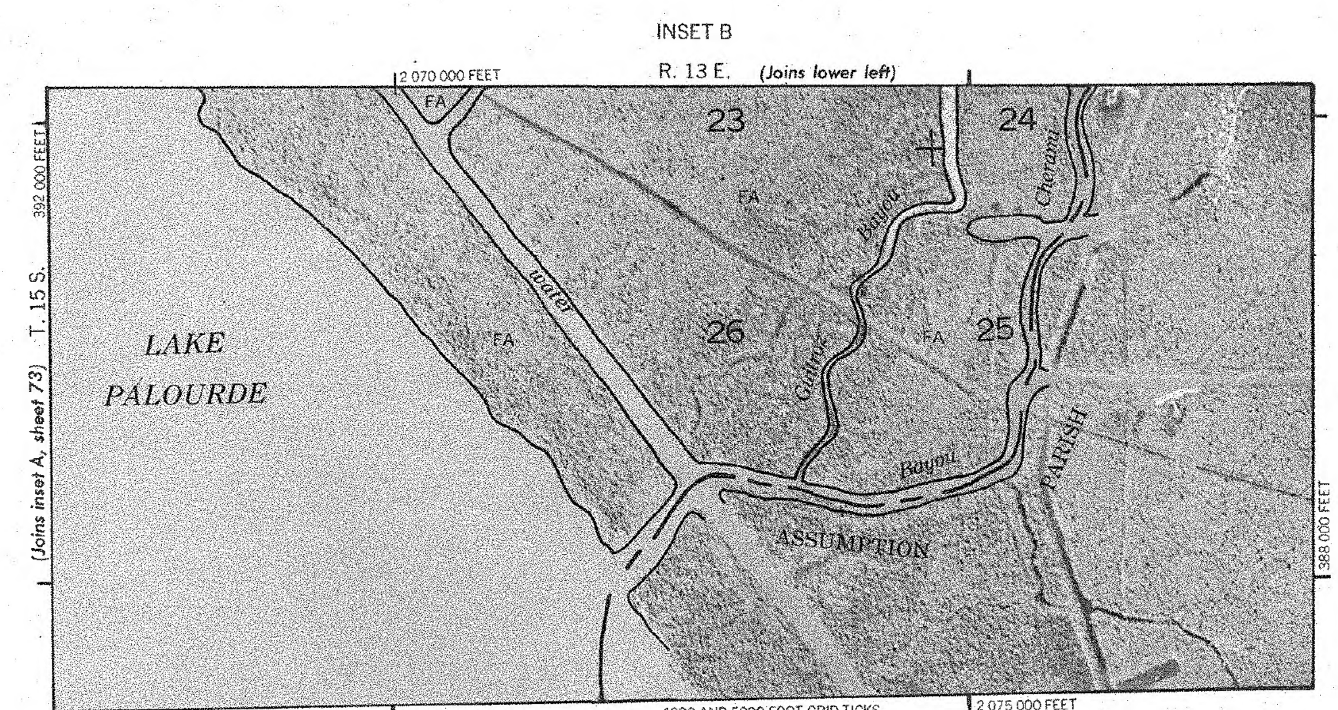
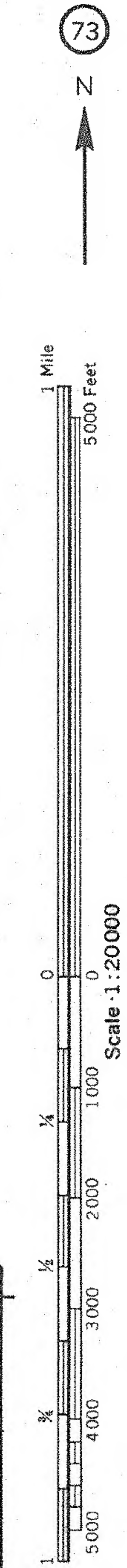
LOUISIANA NO. 72

ST. MARTIN PARISH, LOUISIANA









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